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DISSOCIATIVE IDENTITY DISORDER: AN ANALYSIS OF THE BEHAVIORS AND CONTINGENCIES

TRASTORNO DE IDENTIDAD DISOCIATIVO: UN ANÁLISIS DE LAS CONDUCTAS Y LAS CONTINGENCIAS

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Resumen

Este manuscrito argumenta que el Trastorno de Identidad Disociativo (TID) puede considerarse como una etiqueta para cambios de comportamiento específicos, y que los comportamientos de este trastorno probablemente están controlados por contingencias sociales de reforzamiento positivo y negativo. Se revisa la evolución del concepto relevante de trastorno de personalidad múltiple, ahora denominado TID, a través de varias ediciones del Manual Diagnóstico y Estadístico de los Trastornos mentales (DSM). Este manuscrito propone que el TID consiste principalmente en cambios en las conductas verbales de tacto, intraverbal y la prosodia del habla, que se asemejan a un autoclítico descriptivo. Además, este artículo revisa los dos modelos en competencia de los comportamientos a los que se les dio la etiqueta diagnóstica TID, el modelo postraumático (PTM) y el modelo sociocognitivo (SCM). Se discute una revisión de los tratamientos publicados que emplearon métodos conductuales, así como recomendaciones para los medios para conceptualizar de una mejor manera trastornos como el TID.

Keywords: Trastorno de Identidad Disociativo, repertorio conductual, conducta verbal, tactos distorsionados

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Abstract

This manuscript argues that dissociative identity disorder (DID) can be thought of as a label for specific behavior changes, and behaviors of this disorder are likely controlled by social contingencies of positive and negative reinforcement. The evolution of the relevant concept of multiple personality disorder, now referred to as dissociative identity disorder, through various editions of the Diagnostic and Statistical Manual of Mental Disorders (the DSM) is reviewed. This manuscript proposes that DID primarily consists of changes in the verbal behaviors of tacting, intraverbals, and the prosody of speech, which resembles a descriptive autoclitic. In addition, this paper reviews the two competing models of the behaviors given the diagnostic label of dissociative identity disorder, the Post-Trauma Model (PTM) and the Social-Cognitive Model (SCM). A review of published treatments that employed behavioral methods is discussed, as well as recommendations for the means to conceptualize disorders such as DID better.

Keywords: Dissociative Identity Disorder, behavioral repertoire, verbal behavior, distorted tacts

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From a behavior analytic perspective, individuals who engage in behaviors consistent with the psychiatric disorder referred to as dissociative identity disorder (DID) do not "have" dissociated identities nor multiple personalities in any reified sense. It is clear, however, that the behaviors labeled as DID have been reported by psychiatrists, psychologists, and other professionals in numerous published accounts. DID is a controversial topic. The skeptics and critics refer to this disorder as a medical fad, a complete fraud, an illusion, and a craze (Gillig, 2009; McHugh, 2013; Paris, 2012, 2013; Simpson, 1988; Spanos, 1994). On the other hand, the proponents of DID argue that this disorder's validity is not in dispute; it is not merely due to the iatrogenic influence of therapists. The proponents of DID argue that the critics are wrong, misinformed, and uninformed as to the depth and breadth of research literature supporting the validity of DID; an adequately trained observer can reliably discriminate feigned instances of DID from legitimate instances (Brand, 2013; Brand et al., 2013).

Like all psychological disorders, DID can be thought of as a label that encompasses specific behaviors, primarily verbal behaviors, and as such, behavior analysts can put forth compelling accounts of these behaviors. Attempts to reduce the question of DID as being "real or not" are a gross over-simplification. Other writers have made similar points; "…the fact that certain individuals exhibit the features of DID is not in dispute" (Lilienfeld et al., 1999), and the actual debate should be on the factors responsible for the origin and maintenance of the features

referred to as DID (McHugh, 1993). From a behavior analytic perspective, the "exhibited features" are behaviors (Kohlenberg, 1973).

This review tries to define the behaviors called DID, analyzes the maintaining variables underlying the relevant behaviors, and argues that behavior analysis supplies fresh insight into DID. This review is not without some precedent; Kantor (1919) and Skinner (1974) made passing references to the behaviors and contingencies of multiple personalities or repertoires. A general outline of the arguments presented herein includes the following:

- The defining behaviors of DID and changes in these features over time.
- What are the likely first observable behaviors of DID?
- How to address the reported lack of generalization amongst the behavioral repertoires of DID, i.e., referred to as the experience of "amnesia."
- Two broad perspectives argued to "explain" DID, the social-cognitive model (SCM) and the post-trauma model (PTM).
- Some likely contingencies used by therapists and contingencies operating upon therapists.
- A behavioral case study of an individual with the behaviors of DID.
- Suggested contingencies for treatment and conclusions.

The definition of DID and changes over time

It can be safely stated that DID is a phenomenon of the late 20th century. A highly cited source of information pertaining to DID is the Diagnostic and Statistical Manual of Mental Disorders, the DSM; behavior analysts, however, do not typically turn to the DSM. The behavioral descriptions found in the DSM do not include the typical measures of behaviors on objective dimensions such as frequency, latency, and so forth (Cooper et al., 2020). Furthermore, the behavioral observations that are labeled as a dissociative disorder, such as DID, can be categorized in terms of behavioral excesses and or deficits that are more qualitative than quantitative (Černis et al., 2020). However, the DSM provides utility from a behavior analytic point of view because it presents descriptive information about behaviors that tend to covary (Anderson, 2007). Descriptions of the relevant behaviors first appeared in the DSM-III (American Psychiatric Association, 1980). In the DSM-III, the diagnostic category of multiple personality disorder first appeared as a distinct label; the relevant behaviors were "…the existence within the individual of two or more distinct personalities, each of which is dominant at a particular time" (American Psychiatric Association, 1980, p. 257). The authors of the DSM-IV renamed this

disorder as dissociative identity disorder, and its relevant aspects were "…the presence of two or more distinct identities or personality states that recurrently take control of behavior" (American Psychiatric Association, 1994, p. 477). Currently, the DSM 5 TR presents this description:

- Disruption of identity characterized by two or more distinct personality states.
- The disruption of identity involves marked discontinuity in the sense of self and sense of agency, accompanied by related alterations in affect, behavior, consciousness, memory, perception, cognition, and/or sensory-motor functioning.
- These signs and symptoms may be observed by others or *reported by the individual* (American Psychiatric Association, 2022, p. 330, italics added).

In the DSM 5 TR, additional new wording is notable:

- Most individuals with…dissociative identity disorder do not overtly display or only subtly display discontinuity of identity.
- Only a minority present to clinical attention with discernible alternation of identities.
- The elaboration of dissociative personality states with different names, wardrobes, hairstyles, handwritings, accents, and so forth occurs in only a *minority* of individuals and is *not* essential to diagnosis (American Psychiatric Association, 2022, p. 331, italics in original).
- In most individuals with dissociative identity disorder, switching is subtle and may occur with only subtle changes in overt presentation.
- In those cases where alternate personality states *cannot be directly observed*…the distinct personality states can be identified by alterations in the sense of self and sense of agency (American Psychiatric Association, 2022, p. 331, italics added)

The added information presented in the DSM 5 TR points to an obvious question: What is essential for diagnosis? The answer to that question seems to be self-reports of discontinuity of "sense of self and sense of agency" described as a person experiencing some or all of the following qualitative list:

- Strong emotions, impulses, thoughts, speech, or other actions may materialize without a sense of personal ownership or control.
- Thoughts and emotions may unexpectedly vanish, and speech and actions are abruptly inhibited.
- Attitudes, outlooks, and personal preferences (e.g., about food, activities, gender identity) may suddenly shift.

- Individuals may report that their bodies feel different (e.g., like a small child, the opposite gender, different ages simultaneously).
- A feeling that attitudes, emotions, and behaviors, even the individual's own body--are "not mine" or are "not under my control".
- Although symptoms are subjective, these sudden discontinuities in speech, affect, and behavior may be seen by family, friends, or the clinician (American Psychiatric Association, 2022, p. 331)

In summary, the DSM 5 TR states that discernible alternations in identity as well as overt behavior changes are only present in a minority of individuals. Any such change varies in its overtness, overt behavior changes are not essential for diagnosis, and most of the identity alternations are subjective self-reports, yet identity alternations may be observed. Finally, another important criterion for diagnosis is "recurrent gaps in the recall of everyday events, important personal information, and/or traumatic events that are inconsistent with ordinary forgetting" (American Psychiatric Association, 2022, p. 331). It remains to be seen if this diagnostic profile helps or hinders a better understanding of DID.

The definitions from the DSM-III through the DSM IV all refer to personalities, identities, and or personality states that are the cause of the altered behaviors that are then observed as multiple, dissociated personalities; in other words, the cause and the effect are one and the same, or an example of an explanatory fiction (Heron et al., 2005). Explanatory fictions are fictitious variables that are simply a label for the observed behavior; these variables are the key ingredient in a circular view of the cause and effect of a phenomenon (Heron et al., 2005; Cooper et al., 2020). The definitions from the DSM 5 and DSM 5 TR avoid this error by stating that the disruption in identity is merely characterized as being two or more personality states.

There are other difficulties with these definitions; they must be contextualized against the stance of Occam's razor: "Entities are not to be multiplied beyond necessity" (Blackburn, 1994). In greater detail, applying Occam's razor or arriving at a parsimonious explanation must consist of only the minimum number of elements required to explain a phenomenon (Cooper et al., 2020). In addition, the definitions provided fall subject to the fallacy of reification (Mill, 1873/1874) in that they treat an abstract concept as concrete.

What are the first observable behaviors?

Since DID, at least initially, is a disorder of self-reported symptoms, and these symptoms become more discriminable after sufficient contact with therapists, what behaviors compose DID in its initial form?

Addressing this question calls for conjecture, but some probable answers seem viable. The first observed behaviors of DID are the verbal behaviors of tacts, intraverbals, and prosody. These could be occasioned when a therapist asks a patient if anyone else is present and wants to speak. The therapist might ask if the other identity has a name, a different identity, a different age, a different gender, or if the other, the alter, can remember events that the patient has never reported. These instances of the therapist's verbal behavior represent a mand for information; the verbal behavior that occurs on the part of the patient would be tacts and intraverbals (Skinner, 1957). Suppose I, as a patient, respond to such queries by labeling myself as being someone else with a different name and age, being of a different gender, belonging to a different race, etc. In that case, I am tacting about myself as if I were someone else. Skinner (1957) proposed that "distorted tacts" could result from positive and negative reinforcement contingencies. If, for instance, on Friday, I give verbal reports that I remember events at odds with what I had reported before, on Monday, my verbal behaviors are now differing instances of intraverbals. Changes in prosody would accompany the instances of distorted tacts and altered intraverbals. Prosody refers to the cadence, stress, and inflection of speaking, or what one behavior analyst called "the song of speech" (Palmer, 2014, p. 385). Prosody is difficult to classify in the taxonomy of verbal behavior, but it resembles an autoclitic in that it "modifies" primary verbal behavior for the listener's benefit; that is, it clarifies the relationship among the other terms in the utterance. To be more exact, prosody resembles a descriptive autoclitic; an autoclitic can be defined as an instance of verbal behavior dependent upon other verbal behavior and altering its effects on the listener. A descriptive autoclitic includes discrimination of one's behavior as a speaker; these are verbal responses under the stimulus control of one's current or imminent verbal behavior, including the context occasioning the verbal behavior (Catania, 2017). The tacts and intraverbals would be enhanced with the prosodic changes of fearfulness, anger, sadness, bravado, etc., as different behavioral repertoires/role enactments are performed. The different behavioral repertoires could have differences in the number and topographies of gestures; these wordless communications have been defined as part of verbal behavior (Skinner, 1957). The initial role enactment of a person with the behaviors of DID can be conceptualized as changes in verbal behavior.

One likely conclusion is that the social contingencies exerted in a therapeutic interaction are changing the probability, overtness, and topography of the DID behaviors. Furthermore, are the clients or patients merely serving passive roles, as just being the recipient of the

contingencies? Assuming the client is actively engaged in the therapy, which has been explained as the need to uncover distinct parts of the person, how does the client participate? Does the client assist in the emergence of the role enactments? The term precurrent behavior might point to a behavior analytic answer. Precurrent behavior is defined as behavior that primarily "functions to make subsequent behavior more effective" (Skinner, 1968, p. 124). In this context, the client endeavors to generate additional supplementary antecedents to the point that one or a few stimuli can occasion more elaborate role enactments. The client implicitly aids in the acquisition of the behavioral repertoire. A few occurrences of distorted tacting about the patient's identity become more frequent and elaborated, as do the intraverbals and altered prosody.

There is another mechanism whereby an individual comes to acquire the behaviors labeled as DID, one in which a therapist is not involved. In the case of a child or an adolescent experiencing abuse from a caregiver, such that the abused person cannot physically escape the abusive relationship, the victim could start to engage in "being another person, behaviorally" as in an escape or avoidance response class (Phelps, 2000). Suppose the victim acquires a behavioral repertoire that is different enough from the behavioral repertoire that suffered the abuse. In that case, the abuse may decrease, in which case the acquired repertoire serves as a means of counter-control upon the abusive caregiver. The question of whether DID behaviors function as a means of escape or avoidance will be dealt with again in a subsequent section discussing potential treatment avenues.

DID and amnesia: Addressing the lack of generalization among different remembered intraverbals

As stated, the self-reports of an individual's remembered past experiences are intraverbal verbal behavior; if seen as verbal behavior, then instructions and antecedents could exert control. The alleged reports of inter-identity amnesia for autobiographical information, personal details, and events of everyday life in individuals with the behaviors of DID are a DSM diagnostic criterion (American Psychological Association, 2022, p. 330). Pertinent literature states, "The DID patient's inability to recall information presumably arises from the compartmentalization of memories in separate identities" (Huntjens et al., 2012, p. 1). In the language of psychoanalysis, the individual is experiencing repression (Chandra, 1976). In simpler terms, the same individual will report not being able to remember events that were experienced when different role enactments were being performed; an "alter" who tacts her name and identity as being Sally

will report that they cannot remember, in varying degrees of completeness, the events that happened to another alter who tacts a different name and identity such as Robert. In varying degrees, a specific alter will report amnesia for the autobiographical details of other alters. Skinner (1953) addressed the concept of repression; Skinner argued that the actions labeled as repression were due to a history of punishment such that a person would not be aware of their past, present, or likely future behavior. The individual's reports of "awareness" or "knowledge" of their actions would itself be a verbal operant controlled by specific antecedents. If engaging in one behavioral repertoire has been punished, the person is unaware of those actions when engaging in another repertoire.

In contemporary cognitive psychology, researchers have assessed the "amnesic barrier" and concluded that it is a subjective self-report of recall inability; the subjective report of amnesia is not corroborated by objective data from measures of recall between identities (Kong et al., 2008). Using what is called a concealed information task, researchers found that although individuals with the behaviors of DID will subjectively report amnesia for common words and drawings of familiar objects and autobiographical details of the reported "alters," empirical results indicated generalization or transfer of information between identities (Huntjens et al., 2012, p. 1). The concealed information task relies on differences in reaction time to familiar words or other stimuli versus novel items. The data reported by Huntjens et al. (2012) point to a decisive denouement. However, a given "identity" reported amnesia for material presented to another "identity," the reaction times revealed recognition of the material or generalization across identities. These researchers concluded that "our data indicates that the objective memory data fails to confirm the subjective reports of amnesia in DID" (Huntjens et al., 2012, p. 7). Additional evidence from the literature on "directed forgetting" demonstrates that verbal antecedents can alter the probability of recall (MacLeod, 1975). Antecedent events that indicate whether "rehearsal to remember" should occur or "no rehearsal" clearly alter the likelihood of remembering recent stimuli or events correctly. The effects of verbal antecedents to produce directed forgetting have been deemed "remarkably robust" (Dames & Oberauer, 2022, p. 2990).

Two broad perspectives on the originating and maintaining processes of DID

The literature on DID is divided into two general groupings of proposed mechanisms: the Social-Cognitive Model (SCM), sometimes referred to as the role-enactment model and the Post-Trauma Model

(PTM) (Lilienfeld et al., 1999). The two models propose widely different stances on the causes of DID behaviors. The proponents of the PTM argue that the "core features" of DID, the different alters or repertoires, are *discovered* by therapists, and result from traumatic experiences. The proponents of the SCM argue that therapists *create* these different repertoires, and if the patient has had a history of trauma, such a history might be correlational more than causal. Therefore, it is possible that these two models are not mutually exclusive. The proponents of the SCM role-enactment paradigm argue that the behaviors referred to as DID are created or result from expectations and rule-governances on the part of therapists, as well as from the culture at large, and implicit role-playing behavior by patients created and maintained by social reinforcement (Lilienfeld et al., 1999). The SCM literature is mentalistic, but it can be translated into more behavior-analytic terms. It is mentalistic because the expectations of and rules from therapists do not exist independent of the behavior of therapists (Moore, 2008). The proponents of the SCM argue that the expectations of therapists, the patients, and the culture at large are causing DID. Instead, the behaviors of the therapists, the public at large, and the behaviors of individuals with the relevant behaviors labeled as DID are themselves being caused by the educational practices of therapists and the associated publicity of famous cases.

The evidence for the SCM perspective is circumstantial or indirect at best, except for one unique behavioral case study by Kohlenberg (1973), which will be discussed in greater detail in a subsequent section of this paper. Most therapists who provide services to individuals with the behaviors of DID espouse the post-trauma model. From this perspective, the history of trauma has, in a poorly defined manner, been "internalized" into the person; this is an example of the medical-structural model of symptoms and behavior. This assumption posits that the observed behavior is a mere manifestation of unobserved, hypothetical structures inside the person (Sturmey et al., 2007). From such a perspective, seeking the full extent of any multiplicity/dissociation is essential to therapy (Lilienfeld & Lynn, 2015). Therefore, any intervention must be focused on changing the underlying structures; once the structures are changed, the observable behavior changes (Sturmey et al., 2007). In this context, uncovering the dissociated selves, one of which may be able to remember the trauma, is requisite to processing the trauma and "integrating" the dissociated selves (Ofshe & Singer, 1994; Kluft, 1996; 2006). In more vernacular terms, a therapist cannot merely treat the observable behaviors, which are only symptoms of the underlying pathology. A therapist must

uncover and treat the “real” cause of the symptoms; the real cause is somewhere inside the body, brain, or the patient's mind (Moore, 2008).

As stated, the SCM and the PTM do not have to be mutually exclusive. The SCM's contingencies may be more efficacious if an individual has had a complex, aversive-laden learning history. Such a history could predispose the person to engage in behavioral repertoires as distinct as the behaviors referred to as DID when in the presence of the specific verbal governances and contingencies used in therapy from the PTM perspective.

Both Kantor and Skinner offered speculation as to contingencies that could produce multiple, separate personalities. Kantor (1919) dealt with the topic with the following: “It is thus possible to find within a single individual several personalities capable of separation under various circumstances” (p. 244). Skinner (1974) stated that "Complex contingencies of reinforcement create complex repertoires, and as we have seen, different contingencies create different persons in the same skin, of which so-called multiple personalities are only an extreme manifestation" (p. 171-172). Regrettably, neither Kantor nor Skinner provided additional context or details.

What complex contingencies could produce an individual with a behavioral repertoire best described as a “disruption of identity characterized by two or more distinct personality states” (American Psychological Association, 2022, p. 330)? It is commonly reported that the relevant individuals have had repeated, overwhelming episodes of traumatic events, such as abuse and or neglect as a child, and could have post-traumatic symptoms (American Psychological Association, 2022). These reports do not supply much in the way of explanation since, unfortunately, abuse is not rare, but the reported incidence of the behaviors of DID is less frequent (Lilienfeld & Lynn, 2015). The majority of studies that report confirmation of the association between abuse or trauma and DID lack objective corroboration of the traumatic history and demonstrate selection bias (Lilienfeld & Lynn, 2015). Another question raised by the PTM is that the concept of trauma as being causal only became widely reported after the case of *Sybil*, and the details of the trauma in this case were fabricated (Nathan, 2011; Lilienfeld & Lynn, 2015). The impact of *Sybil* is hard to overstate, and more details will be presented in a later section of this paper. Other authors have suggested that these reports of abuse should not be taken at face value because the relevant individuals give highly variable self-reports, and the reports of abuse may have been suggested by therapists actively prompting and reinforcing verbal behaviors that conform with DID (Spanos, 1994; Paris, 2013). It is unclear whether early abuse has a definitive role in the behaviors of DID (Lilienfeld & Lynn, 2015). The

proponents of the SCM do not necessarily deny abuse occurred but instead argue that a history of abuse correlates with dissociation but is not necessarily causal (Lynn et al., 2014). Several converging lines of evidence support the SCM (Lilienfeld et al., 1999; Lynn et al., 2012; Lilienfeld & Lynn, 2015).

To briefly outline the indirect evidence supporting the social-cognitive model of DID, Lilienfeld and Lynn (2015) argue the following: In the mainstream therapeutic literature about DID, therapists are encouraged to *reify* the existence of multiple identities. These *reifying* techniques are prevalent in the initial stages of psychotherapy. Therapists are explicitly encouraged to *reify* the existence of alters by acknowledging and confirming their independent existence (italics added). These reifying techniques could entail therapists, who are, without knowing it, prompting, occasioning, and reinforcing the maintenance, if not the acquisition, of the behaviors labeled as DID. This speculation suggests that a therapist could rely on positive social reinforcement. Indeed, some writers have alluded to this possibility. Sutcliffe and Jones (1962), as well as Simpson (1988), refer to a "mutual shaping" in which the therapist selectively reinforces the behaviors that are present, intentionally or inadvertently, and in turn, the behaviors are seen with more elaborate topographies and frequency. At least one study has reported that non-directive therapists use differential reinforcement during a therapeutic session to change the content of the client's discussion (Truax, 1966). The study by Truax is relevant to the arguments in this review in that therapists do, in fact, exert control over the statements uttered by a patient; furthermore, non-directive therapists who do so would, no doubt, verbally state that they are not exerting any control. Admittedly, this study did not involve a client with the behaviors of DID, and many therapists who treat DID behaviors are very directive (Spanos, 1994, 1996; Lilienfeld & Lynn, 2015).

Another line of evidence points to a different means of controlling the behaviors in question. Noteworthy practitioners who deal with DID patients employ crude negative reinforcement contingencies, at least initially. Kluft (1987) stated that he would extend interviews up to 8 hours to find what he termed "unforced" dissociations and "spontaneous" switching. The suspected cases could not take any breaks to compose themselves, nor were they allowed to avert their faces away from Kluft as he watched them closely (p. 115). In a report of one challenging case, Kluft observed the first signs of dissociation after six hours had passed, and a "definitive spontaneous switching of personalities" was observed only after 8 hours had elapsed (p. 115). Unfortunately, Kluft did not supply any details of the behavioral

changes he observed during the "spontaneous switching." Weissberg (1993) commented upon Kluft, saying, "It is hard to imagine calling something "spontaneous" elicited from captive patients by such protocols" (p. 25). A more apt observation would be that the patients engaged in a role-enactment repertoire as a functional escape response; it could be that "Say something, say anything" could have been the means to escape from a session with Kluft. Extreme techniques have been reported to be used on individuals in hospital settings. A 1995 PBS *Frontline* broadcast, *The Search for Satan*, reported that patients suspected of "having" DID were kept in restraints for hours at a stretch, and release was contingent upon providing "memories" of acts performed when the patient had been behaving as an alter. The therapists' questioning, expecting, or demanding of information is a verbal operant of "manding for information," a verbal behavior maintained by the specified reinforcer, and the report of remembering would be intraverbal (Skinner, 1957). Such reports suggest that the protocols used to diagnose multiplicity are more likely to create (or coerce) rather than discover multiplicity (Spanos, 1994).

If the relevant behaviors are absent, the therapists could supply verbal prompts or rules to the client by reifying the role enactments of behaving as if dissociated. The behaviors of role enactment of being multiple could initially arise as a rule-governance (Skinner, 1969; Reece, 1989), which social contingencies could then control. If a diagnosis of DID is suspected, a customary practice would be to mand for information to confirm the diagnosis. Weissberg (1993) summarized some common tactics often used with hypnosis. While speaking to only one individual, a therapist might state instructions such as "Everybody listen," "I am not talking to you," or "Is anyone else inside?" Therapists have insisted the person has multiples, and they may suggest or supply names for the multiples. Chu (2005) proposed that clinicians use a "roll call" by calling the names of all known identities to ensure that all are present, listening, and consenting to the treatment. Ross (2018) stated that the therapist may ask that an alter to report what they can see through the host's eyes and that the alter(s) should try to move the hand of the host, among other means, to reveal the presence of the alters. The initial "evidence" that occasions the behavior of a therapist to look for latent multiples can be based on a myriad of mundane complaints such as depressed mood, headaches, impaired concentration, fatigue, drug abuse, or a long history of other mental health diagnoses, among others (Coons et al.,1988; Ross et al., 1989, Ross, 2018). It could also be the case that individuals who are likely to be labeled as having the behaviors of DID are experiencing sleep disorders such as hypnagogic and or hypnopompic hallucinations; these

vivid visual and auditory hallucinations at the onset and termination of sleep may contribute to such individuals reporting dissociation of recall of recent events and of the experience of the self (Lynn et al., 2012; Lynn et al., 2019).

A case can be made that the behaviors of DID are a function of the behaviors of the therapists: most persons exhibiting the behaviors of DID exhibit few or no clear-cut signs of dissociation/multiple role enactments prior to psychotherapy. Once in therapy, individuals with the relevant behaviors tend to engage in or display more personality-repertoires as therapy continues (Lilienfeld et al., 1999; Lilienfeld & Lynn, 2015). Again, the DSM 5 TR states that "…only a minority *present* to clinical attention with discernible alternations of identities" (italics added) (American Psychological Association, 2022, p. 331). This sentence implies that the identity alternations are often not initially observable but later become observable to meet the diagnostic criteria. If the identity alternations were never overtly observable, then the "related alterations in affect, behavior, consciousness, memory, perception, cognition, and sensory-motor functioning" (American Psychological Association, 2022, p. 330) could not be observed. This would reduce DID to a disorder of strictly self-reported behaviors. This quote is noteworthy: "…one would be hard-pressed to find another DSM-IV disorder whose principal psychopathological feature (i.e., alters) is typically unobservable prior to standard treatment and becomes substantially more florid following this treatment" (Lilienfeld & Lynn, 2015, p. 129). One interpretation is that the relevant behaviors labeled as DID are only discriminable after having sufficient contact with this typical DID psychotherapy. Admittedly, observations to confirm this assertion are not available. While there is abundant literature on the observable behaviors of DID, there are simply no published studies on any individual who had none of the relevant behaviors and was subsequently observed to display the behaviors of DID, outside of exposure to typical DID psychotherapy.

Some famous cases are, however, relevant to this line of analysis. Weissberg (1993) argued that the details of Josef Breuer's treatment of Anna O led him to conclude that Breuer's therapeutic interactions "unwittingly encouraged and amplified her dissociations" and "…reified her ego fragments" (p. 15). The changes in Anna O coincide closely with what Lilienfeld and Lynn (2015) stated about the features of a disorder being unobservable and becoming discriminable following exposure to treatment. The trajectory of Anna from having apparent somatoform symptoms and only later signs of dissociation after repeated treatment led Weissberg to conclude that her behaviors of multiple personalities were the result of Breuer's suggestion,

differential attention as well and collusion between the doctor and the patient.

In another relevant case, *Sybil*, it is now known that the patient did not have the relevant behaviors and actively resisted the acquisition and performance of the role enactments and the multiple identities. The origin of the role enactments here relied on an atypical therapeutic setting in which contingency control of behavior, as well as rule-governed behavior, were exerted by the therapist. The therapist was actively seeking variations in behavior that could be explicitly shaped, as well as providing overt verbal suggestions to the patient to change the patient's behavior into distinct, separate behavioral repertoires. This famous case is now known to be a fabrication by the therapist (Nathan, 2011). After a best-selling account of this case was published and a subsequent Emmy-award-winning television movie of the same title, the number of cases of DID dramatically increased, with the cases having increased numbers of alters; and the reported incidence of traumatic-histories as being the cause of the alters becoming much more widely reported (Lilienfeld & Lynn, 2015). The case of *Sybil* produced a sea change in American society and the therapeutic community.

One might be wondering if the therapeutic practices from the PTM perspective have been corrected and refined in more recent years. Can we conclude that such practices are vestiges of the past and are no longer in practice? Unfortunately, this is not the case. Lilienfeld (2007) listed DID-oriented therapy as a "potentially harmful therapy" due to its induction of personalities. In seeming acknowledgment of the problems associated with contemporary, typical psychotherapy for DID, Ross (2018) stated that "There is no scientific evidence that the psychotherapy of DID makes people *worse, on average*" (p. 15, italics added).

A lingering question is why therapists strive to produce multiplicity. The therapists involved in a famous case, *The Three Faces of Eve* (Thigpen & Cleckley, 1954; 1957), provided an answer in a later publication. After the 1957 publication, Thigpen and Cleckley (1984) stated they were often sought out by other professionals and hundreds of self-diagnosed individuals seeking validation of a diagnosis (p. 63). The individuals with the relevant behaviors had been in typical therapy but still sought out a more validating opinion from these esteemed and recognized experts. Thigpen and Cleckley also concluded that therapists were in competition for the greatest number of cases and patients with the greatest number of alters/role enactments. Persons seeking a diagnosis of multiplicity "move from therapist to therapist until 'achieving' a diagnosis" (1984, p. 64). Therapists who were fortunate to have a patient with adroit multiple role enactments rarely

missed an opportunity to show visual evidence of the unique individual. In addition, one of the therapists who became famous as a result of the case of *Sybil*, Dr. Cornelia Wilbur, is still honored today with an eponymous and prestigious award, from the International Society for the Study of Trauma and Dissociation, given annually to DID therapists. In the vernacular, both patients and therapists see DID as a source of social positive reinforcement.

A behavioral case study of DID behaviors

The SCM perspective makes an argument for the maintenance of the behaviors of DID. However, as for the initiation of these behaviors, answers are not apparent unless one takes the stance of the therapist's behaviors as antecedents and consequences via positive and negative reinforcement contingencies, for the behaviors. One case study that does deserve considerable attention was reported by Kohlenberg (1973). In this study, the author reported upon one individual who engaged in highly discriminable verbal and non-verbal behaviors such that the relevant behaviors met the criteria for the label of multiple personality disorder and that the different repertoires responded to differential reinforcement and extinction contingencies. Kohlenberg extensively observed the behaviors of a 51-year-old individual who had been a resident in a psychiatric unit for over 15 years, being given the diagnostic labels of "schizophrenic reaction with multiple personality" in the parlance of that time, with no other historical information. The relevant behaviors demonstrated the contingencies of the SCM. This subject was sought out and presented to visiting professionals and clinical students in training due to his reliable demonstration of multiple personality behaviors. In addition, Kohlenberg reported that the dramatic behavior changes in this subject resulted in a great deal of attention from the hospital's professional staff. In a typical psychiatric hospital, attention from the staff directed towards any resident can be minimal (Layng & Andronis, 1984), but the "dramatic and glamorous behaviors" of this individual occasioned a great deal of staff attention (Kohlenberg, 1973). The distinct personality-behavioral repertoires were referred to as "high, middle, or low." However, Kohlenberg did not provide the differing tacts of names or other identifying information provided by the individual when performing these behavioral repertoires.

The personality repertoire described as "high" included a high-pitched voice, rapid speech, and a clear difference in prosody. On some occasions, the subject's speech was challenging to discern, due to the high rate of utterances. The overt behaviors of general physical movements were more rapid, accompanied by increased activity levels.

The speech included bizarre references about communicating with dead relatives and reports of being controlled by the deceased. The subject menaced staff and other clients with some of his overt actions when enacting the high repertoire.

While engaging in the "middle" personality repertoire, the subject spoke with prosodic differences in a more moderate tone and rate of speech. Individual words and utterances were clearly discriminable, and the content of his speech contained no bizarre references. In this repertoire, his behavior was much more socially appropriate; he read the newspaper, watched TV, and played table tennis and board games with others. To observers present, his behavior was described as relaxed and at ease.

When the subject was enacting the "low" behavioral-personality-repertoire, he talked in an exceptionally low tone and prosody of voice, accompanied by a slow tempo of speech. He was observed to engage in very little activity, verbal or physical. His demeanor was described as depressed; when he did speak, he made references to the destruction of the world, interspersed with fatalistic comments and observations regarding his life.

Kohlenberg reported that in almost any half-hour observation of this individual, the three behavioral repertoires would be observed, alternating in rapid succession. If the individual were asked about the different personalities, he would deny their occurrence or not give an answer.

Kohlenberg arrived at a procedure to demonstrate whether reinforcement contingencies could control these behavioral repertoires. A list of twenty-five questions was developed to occasion the repertoires, including queries about how the person reported feeling on the given day, their age, why they were in the hospital, etc. The questions were posed to the subject in a small private office, with only Kohlenberg and one independent researcher present. These sessions took place daily, during which the verbal responses and other overt behaviors were scored as a component of the high, middle, or low repertoire. The researchers conducted ten non-contingent token delivery sessions, ten contingency sessions, and another ten non-contingent token sessions. There were no typical baseline sessions. In the initial non-contingency sessions, the questions were posed, and the researchers merely waited for an answer; if the individual provided no answer, the researchers waited 15 seconds and then moved to the next question. At the end of each session, the researchers delivered six non-contingent tokens, redeemable in the psychiatric ward's token economy. During the contingency sessions, the same series of questions were presented; each answer, which the independent researcher could

classify as being part of the middle repertoire, resulted in a delivery of a token and a brief touch upon the subject's hand by Kohlenberg. The last ten sessions were a replication of the first non-contingency sessions. Kohlenberg reported interobserver agreement data between the two observers, with an average of 89.4% across the thirty sessions. Kohlenberg did not report the total number of tokens delivered across the ten contingency sessions.

The data collected were very straightforward and the behavior in question changed as a function of the reinforcement contingency. During the initial non-contingency sessions, the high and middle behavioral repertoire occurred at approximately the same frequency, and the graphed data of those two repertoires showed considerable overlap, with the low behavioral repertoire being observed at a lower frequency. When the researchers implemented the reinforcement contingency, the middle behavioral repertoire dramatically increased in its observed frequency starting in session seventeen, with the data from sessions 18-21 clearly separating from the other repertoires. The high and the low repertoire showed a decreased frequency. In the return to the non-contingent token sessions, the observed frequency of the middle repertoire appeared to return to its levels in the prior non-contingent sessions; the measures of the high repertoire also approximated its prior levels, while the data pertaining to frequency from the low personality repertoire increased, in a manner that resembled positive behavioral contrast (Reynolds, 1961).

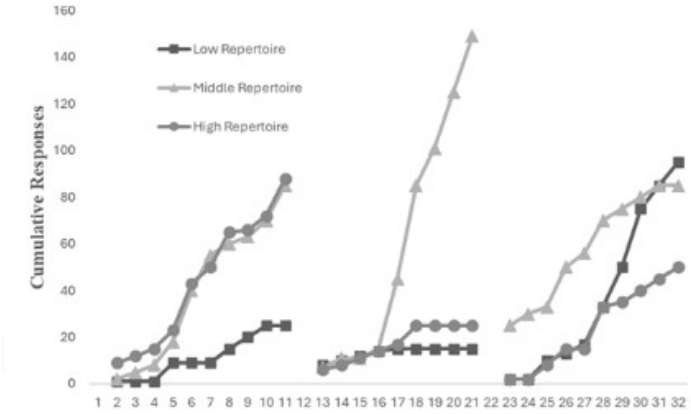
A recreation of the graphed data from Kohlenberg (1973) is presented in Figure 1. In the first phase, consisting of sessions 1-10, tokens were given at the end of each session, non-contingent upon any specific behaviors. In the second phase, sessions 11-20, tokens were given contingent upon behaviors of the middle personality repertoire, coupled with the researcher's touch of the participant's hand. In the third phase, the researcher reinstated the non-contingent token conditions. Kohlenberg concluded:

"The data indicate that the relative frequency of each type of repertoire is a function of the consequence attached to personality types. Thus, rather than looking at multiple personality as a splitting or fracturing of the ego, it would appear to be more useful to consider multiple personality as a function of the consequence of the multiple personality type behavior" (p. 139).

While this study is unique in demonstrating control by a reinforcement contingency, it presents strengths and weaknesses. There were no typical baseline sessions; the data compare the behavior differences between non-contingent and contingent reinforcement sessions, a within-subject protocol best described as a BCB research

Figure 1

Observed Frequency of Three Personality-Repertories



Note. Sessions 1-10 = non-contingent token delivery, 11-20 = contingent reinforcement of the middle repertoire, 21-30 = return to non-contingent token delivery.

design. The fact that the behavior changed contingent upon implementing the reinforcement contingency and subsequently changed as a function of the single reversal points to a functional relationship between the change in contingencies and the observed changes in the target behavior. It must be stated, however, that a more robust demonstration of a functional relationship would require a second reversal, as in an ABAB, which never occurred in this study (Cooper et al., 2020). The researcher, however, did collect additional data, but the author only discussed these in the narrative of the paper's conclusions. Kohlenberg reported that a treatment program involving differential reinforcement was implemented so that all staff members ignored the high and low behavioral repertoires and that the middle behavioral repertoire was given contingent staff attention. Furthermore, the professional attention from visitors focused on multiple behavioral efforts was reduced. Kohlenberg concluded that the elimination of multiple personality behavior was essential for the discharge of the individual after hospital confinement for 15 years. No other information is available regarding this individual.

This 1973 study by Kohlenberg is unique in that similar conditions would be unlikely again for an attempt at a direct replication. It is possible that a systematic replication could be attempted under some analogue environmental arrangement (Peters-Scheffer & Didden, 2007). In the relevant DID research and treatment literature,

Kohlenberg's study receives scant attention. In a widely cited literature review by Lilienfeld et al. (1999), those authors mention Kohlenberg once (p. 514). In Kohlenberg and Tsai (1991), the same author refers to the 1973 study with this statement, "Some support for the role of contingencies in MPD was demonstrated…" (p. 153).

While this 1973 study is the most direct demonstration of the use of contingencies to change DID behaviors, other studies applied behavioral interventions. Price and Hess (1979) reported using role-playing with an individual who engaged in overtly aggressive behavior while behaving in a role-enactment of an alter known as Toni. These authors referred to the successful outcome as being a "fusion" of the two personality repertoires. The actual behavior change came about as the client was taught to openly express her anger while behaving as her original personality repertoire. Price and Hess reported that once the original client, referred to as L., learned to display anger in therapy, the alter known as Toni ceased to emerge. The acquisition of the new assertive behavior of being angry yet still appropriate led to the behaviors of being multiple becoming less probable. Using the term "fusion" and similar ones, such as "integration," is problematic because this verbiage represents vernacular terms applied as mere labels, often without attempting to define the processes responsible for the behavior change (Skinner, 1953).

Another relevant paper that applied behavioral processes was Fahy et al. (1989). This study involved a woman who reported a history of sexual abuse when she was a child, and in the present, she would report being and behaving in the role enactments of several alternate behavioral repertoires; one that appeared as a high-probability behavior was an alter known as Anna. The therapists decided an effective avenue would entail withholding their attention from any behaviors of Anna and other alters. In addition, the therapist taught the client to acknowledge her feelings as being part of herself and to use the word "I" to talk about her behaviors and experiences rather than refer to these as being a manifestation of one of the alters-identities. The authors reported that Anna's high-probability repertoire became observed less frequently, or in their words, Anna became less dominant, as the client came to correctly discriminate her feelings as being her collateral behaviors. These authors taught the client to correctly tact her emotional responses as being "I feel my bodily states" as her own, rather than attributing them to Anna.

These few studies reveal the fact that behavioral approaches to address the behaviors of DID are a rarity. Therapists and researchers could apply other possible behavioral avenues, but these have yet to be implemented systematically. The behaviors of DID might represent

response competition between distorted, inaccurate tacts and intraverbals and accurate tacts and intraverbals of their actual identity and history. The social reinforcement from therapists and others has resulted in equal probability between these response classes. It could also be the case that inaccurate verbal behaviors have a greater probability than "true" verbal behaviors. Rosenfarb (2013) stated that when an individual's speech is inaccurate and disorganized, the verbal behavior does not come under the control of listeners. If an individual's verbal behavior is not under the control of listeners, then it could be under the control of private stimuli. Individuals with the behaviors of DID commonly report a history of abuse or neglect (American Psychiatric Association, 2022). As a function of having verbal behavior extinguished or punished by an aversive social environment, verbal behavior more controlled by internal-private cues relative to the social environment may guard the person against more social aversive outcomes (Rosenfarb, 2013). Therapy would need to restore the higher probability of correct tacts and intraverbals.

Applying role-playing to help a person's personality/behavioral repertoire have less extreme variation and more coherence could be a practice, as shown by Price and Hess (1979). The person with the behaviors of DID could be taught to occasion observations from others, such as asking, "Am I still behaving as me?" The person with the behaviors of DID could explicitly review and rehearse the veridical biographical details of their life. One person, but none of the "alters," has actual details of their life that can be researched and reviewed, such as birth certificates, family mementos, photographs, audio and video records, records of their schooling, employment history, relationship history, etc. With these materials, the individual could re-acquire the correct tacting of their identity to reflect who the person is. Inaccurate intraverbals can be replaced with more exact intraverbals based on the evidence of actual life history. Admittedly, this would involve a series of review sessions with therapists and family members, the arrangement of explicit antecedents and differential reinforcement contingencies, and assignments for the person to review and rehearse the biographical details of their documented learning history, i.e., homework between sessions. A worksheet of verified life details and facts of the person's actual identity could be produced for practice. Any average individual can state the details of who they are, the events of their life, and their learning history accurately and fluently. Since a person with the behaviors of DID cannot do so, the worksheet could be used for something akin to fluency training. Behavior analytic therapy could reinstate the higher probability of veridical tacts and intraverbals.

Other possible therapeutic avenues could involve training in self-observation and Acceptance and Commitment Therapy (Zerubavel & Messman-Moore, 2015). Individuals need to learn to "…step back inside themselves, not outside themselves to observe. Observing is not dissociating" (Linehan, 1993, p. 67). If individuals with dissociation behaviors learn to "pay attention to their attention" (Schneider, 2012), they can more objectively observe their thoughts, and emotional and bodily states. Doing so can reduce the tendency for avoidance and the possible reinforcement value of dissociation behaviors (Zerubavel & Messman-Moore, 2015). This, however, is mere speculation. Evidence for this approach being effective has not been demonstrated at present; Maxwell et al. (2018) concluded that no therapeutic approach for DID could be included in what are defined as empirically supported treatments (ESTs). Neither the study by Kohlenberg (1973) nor any other studies discussed herein would be included in the criteria for being an EST.

Seeing is believing versus believing is seeing?

The role of popularized cases such as *The Three Faces of Eve* and *Sybil*, as well as the contributions of popular media, call for some attention in this review. As stated, both prior cases led to the widespread belief in trauma as a causal factor and the elevation of clinicians with relevant experience being sought after as celebrities. In addition, the popular depictions of the relevant behaviors in other cultures have produced differences in the exhibited behaviors. Unlike cases in North America, in India, the transitioning or switching between alters is cinematically depicted as occurring after a period of overnight sleep. As a result, Indian cases of MPD/DID switch behavioral role enactments accordingly (Adityanjee & Khandelwal, 1989).

Any statements about the popularity or prevalence of DID have to be contextualized by the facts as to the limit of the cultures in which DID is more commonly observed. There are some striking facts about who sees DID and the number of cases observed by those most likely to make the observations. Therapists who were members of the International Society for the Study of Multiple Personality and Dissociation (now called the International Society for the Study of Trauma and Dissociation, or the ISSTD) were more than ten times as likely to observe DID compared to non-members (Ross et al., 1989; Modestin, 1992). Likewise, over 90% of clinicians reported never having observed the relevant behaviors of MPD or DID (Modestin, 1992). Admittedly, the disproportionate number of cases reportedly observed by members of the ISSTD could be the result of their expertise attracting more individuals, as with Thigpen and Cleckley (1984). The

writings of a few known researchers resulted in increased attention being paid to DID in the Dutch popular media and academic circles, including increases in reported cases in Dutch society (van der Hart, 1993; van der Kolk et al., 1996; Lilienfeld & Lynn, 2015). More professional publicity leads to more cases.

DID has been commonly described as a "culture-bound" disorder in that these behaviors are observed much more frequently in North America and, until the last 25 years, rarely observed outside North America (Lilienfeld & Lynn, 2015). To further contextualize the limited observations of DID, the outcome that a condition initially confined to some countries or cultures and later spreads to other cultures does not negate that such a condition is immune to cultural influence (Lilienfeld & Lynn, 2015). If the enactments of the behaviors of DID and the differential attention paid to such behaviors by professionals can be conceptualized as a cultural practice amongst a limited population of academics, researchers, or patients, then DID's limited scope points to the controlling metacontingencies for this practice. Metacontingencies involve selection by consequences of the interlocking behavior of group members and the selection of cultural/group practices (Glenn, 1988, 2004). The consequences for professionals to study and publish about the behaviors of DID can involve punishing contingencies by skeptical professionals (Paris, 2013) as well as social positive reinforcement from others (Thigpen & Cleckley, 1984). The differential consequences for individuals who engage in such behaviors can also be social positive reinforcement (Kohlenberg, 1973). As for why DID behaviors and diagnoses of DID are persistent, such practices are spread through instruction and imitation, and these practices produce reinforcing consequences for the patient and the professional (Glenn, 1988, 2004).

Are there other means by which the behaviors of DID are being propagated? Not surprisingly, the internet and social media are potentially significant contributors. One prominent DID researcher from the SCM perspective (Steven Jay Lynn) reported this:

"I suspect that reading about DID and media exposure could predispose people seeking to understand puzzling experiences/symptoms to believe they possess multiple "selves," so I would not be at all surprised if many people conclude they are "multiples" in the absence of or prior to psychotherapy. There are now many websites and media vehicles (TikTok) that proliferate accounts of spontaneous DID and people that are attracting a lot of "clicks,"…I simply find it too depressing to search the Internet for examples, but my students tell me they are abundant and on the rise" (one person's account of DID received 500,000 "likes") (S. J. Lynn, personal communication, February 22, 2022).

Based on the reports of Thigpen and Cleckley (1984) and the actions of the clinicians who sought to see the individual studied by Kohlenberg (1973), the behaviors of DID are likely to result in contingent reinforcement. It can be stated safely that no individual "wants" or "seeks" to be labeled as "having" schizophrenia or other severe disorder. However, the same might not be safe or correct to say about being labeled as having DID.

Conclusions

In summarizing this section on the maintaining variables of DID behaviors, one conclusion is that neither the SCM-role-enactment nor the post-trauma model offers a full account of the relevant behaviors here. Both models leave ample room for speculation and conjecture, and the analysis of the behavior of persons displaying DID need not rely solely on one model, as the models are not mutually exclusive. The fact that overt behavior changes are not essential for a DSM 5 TR diagnostic label points to the need for a thorough analysis of the verbal behavior of patients. Clearly, some therapists exert control with negative reinforcement contingencies, which occasion and reinforce avoidance and escape behaviors by patients. Other therapists inadvertently shape the verbal behaviors and possibly overt behaviors of DID. Further analyses point to positive reinforcement for a patient exhibiting the behaviors of DID as well as for therapists who create these repertoires. Finally, behavioral procedures have been demonstrated to be efficacious to address the behaviors of DID. Possible future steps to further demonstrate the relevance of behavior analysis to DID are suggested next.

When determining the events serving as the controlling variables of a target behavior, typically, a behavior analyst conducts a functional analysis of the antecedents and the functions of the consequent events (Cooper et al., 2020). A functional analysis is possible here but has never been attempted in any instance of DID behaviors. Anderson (2007) stated that the development and application of functional assessment methods appropriate for many clinical populations have, until very recently, received only minimal attention. Since Anderson (2007), few instances of functional analysis of clinical populations (other than Autism Spectrum Disorder) have been published (Rosenfarb, 2013). It should be clear that, regardless of the presentation of signs and symptoms, the role of environmental variables in maintaining and controlling the behavior at hand deserves emphasis. Behavior analysts must demonstrate that functional assessment is applicable and has utility for the broad continuum of human behavior problems (Anderson, 2007). Some conclusions seem likely if a

functional analysis were to be conducted; in some cases, the behaviors of DID would appear to be maintained by social positive reinforcement, i.e., attention. In other cases, social negative reinforcement could maintain the relevant behaviors (Cooper et al., 2020). These tentative conclusions are based on the case study of Kohlenberg (1973), the social media postings garnering attention, and the coercive contingencies of conventional DID therapists, but these are very tentative conclusions; little of this approach has been applied in the case of the behaviors of DID.

In addition to the typical application of functional analytic methods, qualitative research methods could prove useful in understanding the behaviors and contingencies of DID. Burney et al. (2023) argued that qualitative methods could allow behavior analysts to use different methods to address diverse questions about behavior. Since the behaviors of DID are primarily verbal self-reports, any means of addressing "words as data" (Burney et al., 2023) may prove instrumental to understanding DID.

There are other approaches to determining the factors responsible for a phenomenon, such as trying to arrive at the necessary and sufficient conditions for an event or behavior (Copi, 1982). A researcher has explained an event or a phenomenon when the variables that caused the event have been identified, and the causal factors are elucidated in terms of the necessary and sufficient conditions. X is a necessary condition for the event Y if Y never occurs in the absence of X. W is argued to be a sufficient condition for V if W always occurs whenever V occurs. Copi (1982) spells out that there may be multiple necessary conditions for the occurrence of an event, and the sufficient condition would be the total sum of these necessary conditions. One reason identifying the necessary and sufficient conditions has value is that doing so enables the creation of additional discriminative control to result in a greater likelihood of reinforcing outcomes in interaction with behavior or other natural phenomena (Moore, 2008). Behavior analysts have had little to say in defining necessary and sufficient conditions for specific behaviors and contingencies, with the possible exception of Hillner (1979). The arguments pertaining to necessary and sufficient conditions would seem to be more relevant to behaviors for which singular contingencies can be identified. When dealing with behaviors that likely have multiple causes, such as DID, attempts to elucidate necessary and sufficient conditions seem less likely to be fruitful (Cooper et al., 2020).

Another way of evaluating the gravitas of an argument is through the lens of pragmatism. Pragmatism is a philosophical position that "the truth value of a statement is a function of how well the statement

promotes effective action" (Moore, 2008, p. 400). Skinner valued pragmatism as a criterion for judging concepts. "The ultimate criterion of goodness of a concept is not whether two people are brought into agreement but whether the scientist who uses the concepts can operate successfully upon his material—all by himself if need be" (Skinner, 1945, p. 291). The study by Kohlenberg (1973) demonstrated that the contingencies of behavior analysis successfully modified a behavioral repertoire of multiple personalities into a singular repertoire. It is suggested here that changing the verbal behavior of tacting about identity, self, and related concepts could be an unexplored and pragmatic approach to an analysis of the behaviors of DID.

Will an improved understanding of the behaviors of DID emerge from the current acrimonious debate and accusations of fraud described in the introduction of this paper? This remains to be seen. Science is often described as being self-correcting, at least in principle. However, the critics who argue for corrections in existing data are written off as being out-of-line bullies or, even worse, vandals, and the adherents to the existing knowledge base are likely to counterattack the upstart pundits (Vazire, 2019). Behavior analysis can contribute to understanding the behaviors labeled as DID and other qualitative behavioral phenomena where the primary data consists of self-reported behavioral measurement, words as data (Burney et al., 2023). The present paper provides an example for future dialogue about a topic that non-behavioral professionals would likely see as familiar and as a small step towards reaching a larger audience with descriptions of the relevance of basic behavioral theory and processes.

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