Received: 11 July 2023 | Accepted: 19 January 2024

DOI: 10.1002/jaba.1063

DISCUSSION

Journal of Applied Behavior Analysis SEAB

Toward a further understanding of assent

Cody Morris[1] | **Jacob P. Oliveira**[1,2] | **Jesse Perrin**[1,2] | **Caitlyn A. Federico**[1,2] | **Paula J. Martasian**[1]

[1]Department of Psychology, Salve Regina University, Newport, RI, USA

[2]Pathways Strategic Teaching Center, Coventry, RI, USA

Correspondence
Cody Morris, Salve Regina University, 100 Ochre Point Ave., Newport, RI, 02840, USA.
Email: cody.morris@salve.edu

Editor-in-Chief: John Borrero
Handling Editor: Carole Van Camp

Abstract

Arranging assent opportunities is an increasingly common strategy for involving clients in therapeutic decisions within behavior analysis. Recent behavior-analytic articles have helped create a basic behavioral definition and conceptualization of assent, but much more guidance is needed for practitioners and researchers interested in embedding assent into their practices. The purpose of this article is to advance the conceptualization and understanding of assent and assent practices by refining previous definitions and conceptualizations of assent and providing six essential considerations for embedding assent into practice. The six considerations consist of determining the applicability and feasibility of assent, assessing assent-related skills, arranging assent procedures and teaching assent-related skills, arranging fair choices, selecting opportunities to assess assent, and informally assessing assent. Following the discussion of the considerations for assent practices, we issue a call for specific topics of research on assent.

KEYWORDS

assent, choice, client-centered services, consent, ethics

Involving clients in therapeutic decisions[1] is a client-centered approach to treatment and a critical component of behavior-analytic practice and research (Behavior Analyst Certification Board [BACB], 2020; Zayac et al., 2021). Recently, the term *assent* has gained popularity within and beyond behavior analysis as a label that refers to clients participating in some types of therapeutic decisions (Morris et al., 2021). However, the foundational arguments that established the importance of client-centered treatment and client involvement in therapeutic decisions in behavior analysis predate the recent use of assent. Examples include Skinner (1959/1999), Baer et al. (1968), Wolf (1978), and Bannerman et al. (1990).

Skinner (1959/1999) was concerned with the mistreatment of clients that arises when clients do not have the ability to exert countercontrol[2] over caregivers who control much of their treatment environment. Skinner argued that large power differentials between caregivers and clients put clients at risk of mistreatment because clients in those situations have less opportunity to exercise countercontrol. For example, the power differential between a schoolteacher and a typically developing high-school student is likely much smaller than the power differential between a schoolteacher and an elementary school student with developmental disabilities because the high-school student would likely have more advanced self-advocacy skills than the younger student. Therefore, the elementary school student will be less likely to engage in countercontrol such as reporting the teacher for inappropriate behavior, which makes them more vulnerable to mistreatment. Skinner argued that an important component of preventing the mistreatment of vulnerable populations is arranging countercontrol on behalf of the client. However, Skinner struggled to identify exact guidelines for how to best use countercontrol to help clients because of the difficulty of identifying clients' preferences and opinions as they relate to treatment.[3]

Baer et al. (1968) proposed and defined seven dimensions that constitute some of the primary characteristics of applied behavior analysis. Within the description of

[1]*Client* is used broadly to refer to individuals receiving services and research participants. Similarly, *therapeutic decisions* encompass treatment components and research procedures.

[2]*Countercontrol* can be understood as operant behavior that occurs in response to perceived social aversive control that results in the extinction or punishment of the punishing agent's behavior (Fontes & Shahan, 2021).

[3]To illustrate, Skinner posited that the golden rule (i.e., treat others how you want to be treated) might be a tempting guidepost for determining client preference, but it is an imperfect rule because clients might want to be treated differently than their therapist would wish to be treated.

the first dimension, applied, Baer et al. specify that a guiding question of applied work must be "How immediately important is this behavior or these stimuli to this subject?" (Baer et al., 1968, p. 93). Often, the importance of a treatment to a client is referred to as the "social significance" of the intervention (Cooper et al., 2019, p. 16). By specifying that interventions must be socially significant to be considered applied, Baer et al. underscored the importance of the client's perspective of treatment like Skinner (1959/1999) did before them. However, like Skinner, Baer et al. did not propose a specific strategy for achieving social significance in therapeutic services. Thus, Skinner and Baer et al. established the rationale for a client-centered approach (although not using that specific language), but neither proposed practical strategies for accomplishing it.

Wolf (1978) built on the foundation of social significance established by Baer et al. (1968) by further elucidating the concept of social significance. Wolf described three critical components of what he termed "social validity": the meaningfulness of the goals of the intervention, the appropriateness of the procedures, and the satisfaction of the effects of the intervention. Wolf argued that each of the three components of social validity should be evaluated and accounted for to achieve social significance in therapeutic services. To determine whether the components of social validity were met, Wolf stated that the "specific consumer or representatives of the relevant community" should be consulted (Wolf, 1978, p. 209). Thus, Wolf extended the arguments made by Skinner (1959/1999) and Baer et al. by explicitly stating that clients and stakeholders should be involved in treatment decisions to inform a truly client-centered approach to treatment.

Finally, Bannerman et al. (1990) further developed the argument for the importance of client involvement in therapeutic decisions in client-centered services by discussing the balance of habilitation (i.e., helping a client obtain the skills needed to be as independent and autonomous as possible) with the right to personal liberties in treatment decisions. Specifically, Bannerman et al. asserted that service providers are susceptible to compromising clients' personal liberties in the quest to help their clients maximize habilitation and that a better balance must be arranged to produce optimal treatment results. Bannerman et al. argued that denying personal liberties could be viewed as a violation of clients' rights, in addition to preventing the clients from practicing and learning essential independent skills needed to maximize habilitation.

In addition to describing concerns with disregarding clients' personal liberties, Bannerman et al. (1990) discussed concerns with relying on clients' choices as the primary basis of treatment decisions. Namely, Bannerman et al. acknowledged that clients who do not have effective decision-making skills could make choices that negatively affect the quality of their lives and hinder their treatment progress. Therefore, Bannerman et al. proposed that habilitation and choice be balanced by protecting both and, in doing so, advanced the argument and provided specific guidance for involving clients in treatment decisions to better facilitate client-centered services.

In summary, several articles published by prominent behavior analysts have encouraged a client-centered approach to treatment that includes (a) consideration of the effect of power differentials on self-advocacy (e.g., Skinner, 1959/1999), (b) focus on social significance in treatment (e.g., Baer et al., 1968), (c) evaluation of social validity (e.g., Wolf, 1978), and (d) direct involvement of clients in treatment decisions (e.g., Bannerman et al., 1990). Together, these articles guided the conceptualization of, and clinical focus on, the client-centered approach in applied behavior analysis.

More recently, the Ethics Code for Behavior Analysts (BACB, 2020) and Morris et al. (2021) extended the foundation of the client-centered approach to treatment. The most recent version of the Ethics Code for Behavior Analysts includes specific standards and core ethical principles that echo historical calls for client-centered services that involve clients in therapeutic decisions. Specifically, Standard 2.09 stipulates that "Behavior analysts make appropriate efforts to involve clients and relevant stakeholders" in therapeutic decisions and two other standards call for assent to be obtained "when applicable" (Standard 2.11) or "when relevant" (Standard 6.04) in treatment and research contexts (BACB, 2020). In addition, the core ethical principle—treating others with compassion, dignity, and respect—explicitly calls for promoting self-determination and personal choice in treatment and research contexts (see Peterson et al., 2021). Taken together, the standards and the ethical principles outlined in the ethics code formalize the historical calls for client-centered services that involve clients in therapeutic decisions by making it an ethical responsibility for practicing behavior analysts.

Morris et al. (2021) built on the recommendations that behavior analysts seek and assess assent while promoting self-determination and personal choice provided in the Ethics Code for Behavior Analysts (BACB, 2020) by explicitly conceptualizing assent as an embodiment of involving clients in therapeutic decisions and client-centered treatment. Morris et al. provided a working definition of assent, provided a conceptualization of the critical components of assent, reviewed published research on assent, and even proposed a framework for assessing assent with individuals with severe communication difficulties. However, Morris et al. focused primarily on assent with individuals with autism and developmental disabilities in research contexts. As a result, several critical nuances and considerations regarding assent and client involvement in therapeutic decisions in clinical practice with diverse clientele were not captured.

Two articles published after the Morris et al. (2021) review and discussion of assent in behavior-analytic research advanced the conversation of assent in behavior analysis. Flowers and Dawes (2023) and Breaux and Smith (2023) reviewed and compared components of assent in related disciplines. Both Flowers and Dawes

and Breaux and Smith provided preliminary practice considerations, but neither provided strong empirical support for their recommendations or clear directions for future research.

The purpose of this article is to advance the conceptualization and understanding of assent and assent practices as they relate to involving clients in therapeutic decisions to facilitate client-centered services. This article extends previous literature focused on assent and client involvement in therapeutic decisions by elaborating on a working definition and conceptualization of assent, providing preliminary practical considerations for client assent with diverse clients and contexts based on existing research, and highlighting areas within assent that would greatly benefit from future research.

DEFINITION AND CONCEPTUALIZATION OF ASSENT

Assent is best defined in comparison with the related and equally important concept of consent. *Consent* can be defined as the affirmation that an individual, who is legally authorized, gives permission for themselves or another individual to participate in a procedure after they receive adequate information about the procedure (Breaux & Smith, 2023; Katz et al., 2016; Morris et al., 2021; Protection of Human Subjects, 2018). Consent can consist of an individual affirming permission for themself or a ward (i.e., someone for whom they serve as legal guardian). In contrast, *assent* can be defined as the affirmation that an individual who is not legally authorized to consent for themselves (i.e., they are a ward) indicates a willingness to participate in a procedure after they receive adequate information about the procedure (BACB, 2020; Breaux & Smith, 2023; Flowers & Dawes, 2023; Katz et al., 2016; Morris et al., 2021; Protection of Human Subjects, 2018). Put simply, assent is someone personally indicating a willingness to participate in a procedure (e.g., research, treatment, assessment) after someone with legal authorization has already consented to their participation in the applicable procedure. Permission in the form of consent must first be obtained by the legal guardian before assent can be solicited in applicable situations. Thus, when a potential client is considered a ward, the order of operations follows that after consent is obtained by the legal guardian, assent can be solicited. This is true regardless of the reason that the client is considered a ward (e.g., age, disability status, or perceived competency).

Both consent and assent require approval from someone regarding participation in a procedure (BACB, 2020; Protection of Human Subjects, 2018). Approval to participate in a procedure is fundamentally a choice (i.e., the choice to participate in a procedure or not). Choice can be defined as the allocation of behavior (i.e., a selection response or time allocation) among two or more activities (Baum, 2010). Among other things that will be discussed later in the article, the choice to consent and assent to procedures requires that adequate information be provided to the person(s) agreeing to the procedures (Breaux & Smith, 2023; Katz et al., 2016). Adequate information refers to the content that someone needs to make an informed decision (Katz et al., 2016). The information that may be necessary to inform consent includes a statement of what the procedure involves, a description of foreseeable risks and discomforts, a description of possible benefits of the procedure, and a review of possible alternative options (Katz et al., 2016; Protection of Human Subjects, 2018). The information that may be necessary to inform assent is more complicated to determine because the amount and type of information that can be comprehended by a client involved with assent might vary greatly. Ideally, clients would be given and comprehend the same information that is given during the consent process, but that amount of information could exceed a client's skill set and produce counterproductive results (e.g., reluctance or resignation due to confusion about the procedures). Thus, the determination of whether the information provided to a client to inform assent is adequate is much more nuanced and requires further consideration.

Another important similarity between consent and assent is that they are both dynamic processes that extend beyond a single event (Breaux & Smith, 2023). Traditionally, opportunities for initial consent and assent are arranged prior to the start of the applicable procedures. However, consent and assent do not stop after the initial approval. A critical component of consent and assent is they can be withdrawn throughout the procedure in question (Katz et al., 2016; Protection of Human Subjects, 2018). This means that when assent is obtained from a client, they should be given the opportunity to withdraw their assent throughout the relevant procedure.

In conclusion, a comprehensive definition of assent that incorporates all of the content discussed heretofore has four critical components that could be formed along the lines of the following: (a) a client who cannot legally provide consent for themselves, (b) indicates their willingness to participate in a procedure via a choice arrangement, (c) after they have received adequate information about the procedure, and (d) with the expectation that they can withdraw their assent at any time during the procedure.

Additional considerations for conceptualizing assent

A comprehensive definition is only one part of building a conceptualization of assent. An understanding of the basic goal and components of assent are also necessary. The basic goal of assent practices in behavior analysis should be to help facilitate client-centered services by involving clients in key therapeutic decisions—the selection of the procedures to which they will be exposed. It

should be noted that assent practices, although very important, are not the only way to involve clients in therapeutic decisions. Assent specifically refers to the agreement to participate in a procedure. Other essential therapeutic decisions, such as selecting treatment goals, would not be captured in an assent process. Thus, assent should be viewed as only one embodiment of involving clients in therapeutic decisions and not necessarily sufficient in isolation. In fact, terms like *assent-based behavior analysis* (Breaux & Smith, 2023), which might be used to describe practices that assume a client-centered approach to treatment, omit other vital components of involving clients in therapeutic decisions and client-centered care. Seeking and arranging opportunities for clients to be involved in therapeutic decisions within and beyond assent is necessary to provide client-centered services.

Facilitating assent, like other strategies for involving clients in therapeutic decisions, can produce several benefits for the client. One benefit is that assent practices can help ensure that services are meaningfully client-centered. Skinner (1959/1999), Wolf (1978), Bannerman et al. (1990), and others have noted many of the complexities of determining whether treatment aligns with client interests (i.e., client-centered practices) when the client is not involved in therapeutic decisions. Arranging assent with clients gives behavior analysts an opportunity to assess and better understand their client's interests as they pertain to treatment, which will allow them to better facilitate client-centered services. Arranging assent opportunities also gives clients an opportunity to exhibit and practice self-determination and personal choice (Peterson et al., 2021). Supporting self-determination and personal choice are critical components of treating clients with compassion, dignity, and respect (BACB, 2020). Self-determination and personal choice are also skills that help clients build toward a crucial goal of behavior-analytic services—to help clients gain as much independence and autonomy as possible (BACB, 2020; Bannerman et al., 1990; Peterson et al., 2021). Thus, arranging assent opportunities gives behavior analysts practical information about their client's willingness to participate in procedures while embodying compassion, dignity, and respect in their services, and it gives clients an opportunity to practice essential skills.

CONSIDERATIONS FOR OBTAINING ASSENT

Although the basic conceptualization of the assent process provides a foundational framework for understanding and facilitating assent with clients, much more information is necessary to navigate the complex variables that exist in clinical settings and solve related problems. Important considerations for arranging assent in clinical practice include determining the applicability and feasibility of assent, assessing assent-related skills, arranging assent procedures and teaching assent-related skills, arranging fair choices, selecting opportunities to assess assent, and informally assessing assent.

Determining applicability and feasibility of assent

Assent is only relevant when a client is considered a ward. Thus, one of the first considerations for determining whether assent is applicable is whether the client in question has a legal guardian. Limiting assent considerations to clients who are considered wards helps narrow the list of client profiles to which assent may be applicable, but behavior analysts serve a diverse range of clients that includes many different client profiles who would be classified as a ward (e.g., children, adolescents, adults in conservatorships). Each type of client and each client served by behavior analysts requires unique considerations to determine the applicability of assent practices.

Perhaps the most common client consideration pertaining to the applicability of assent within and beyond behavior analysis is the client's *capability* (i.e., the ability to provide assent).[4] The Federal Policy for the Protection of Human Subjects (FPPHS; Protection of Human Subjects, 2018), which is focused on protecting research participants, specifies that important considerations for the client's capability are their age, maturity, psychological state, and the client's ability to be consulted (2018). Although FPPHS considerations are not explained or rationalized within their guidelines, it can be presumed, based on their stipulations, that they are meant to help identify clients who can easily engage in the standard assent arrangement (i.e., spoken or written instructions) and rule out those who cannot. However, there are several possible adaptations to the traditional assent process that might make assent more accessible to individuals with different skills (Morris et al., 2021). Thus, capability considerations can and should be elucidated to account for assent beyond the standard assent arrangement.

Another important consideration pertaining to the applicability of assent is its potential therapeutic benefits. Although arranging assent has the potential to help produce therapeutic benefits (Morris et al., 2021), it also has the potential to produce countertherapeutic effects in some contexts. One example of conditions under which obtaining assent may be countertherapeutic is when a procedure is necessary regardless of assent. A procedure would be considered necessary if there are no alternatives to the procedure and not engaging in it would produce substantially harmful effects or it is required by law (National Association of School Psychologists, 2020). Examples of procedures that could indirectly lead to harm if not completed are assessment procedures that

[4]Terms such as capacity and competence are also used to refer to a client's ability to assent (see Katz et al., 2016). Several authoritative sources differ in their use of capability, capacity, and competence. We chose to use the term that aligns with the U.S. Department of Health and Human Services (Protection of Human Subjects, 2018) because that is most relevant to this discussion.

inform critical treatment components. In the same way that a medical doctor might need to see the results of a hematology report that requires a blood draw with which a patient may not wish to participate, a behavior analyst might need to conduct assessments like functional analyses, skill assessments, etc. Regardless of the procedure in question, it is important that behavior analysts review the proposed procedures and the potential harm of not implementing the procedures with the client's treatment team to assist with the evaluation of the necessity of the procedure.

When using procedures that are necessary, the question is whether the client should be given an opportunity to assent. Groups such as the American Academy of Pediatrics (AAP)'s Committee on Bioethics (2016) have asserted that assent should not be solicited when a procedure is necessary (Katz et al., 2016). The rationale provided by the AAP's Committee on Bioethics for foregoing assent when procedures are necessary is that the client is not the final decision maker, the guardian is. Although not specified within the AAP's Committee on Bioethics policy statement (AAP, 2016) or subsequent technical report (Katz et al., 2016), one reason that some might advise against giving the client an opportunity to assent when assent cannot be honored is the fear that the failure to abide by the client's choice could damage rapport (Wasserman et al., 2019). Thus, the alternative process proposed by the AAP's Committee on Bioethics is that the client should still be informed about the procedure prior to its implementation. However, Wasserman et al. (2019) argue that this approach does not afford sufficient respect for the client. The alternative method proposed by Wasserman et al. is that practitioners always solicit assent and apologize when they cannot honor the client's wishes if they do not want to participate in a necessary procedure.

Determining the best way to interact with a client around necessary procedures is difficult despite the recommendations provided by the AAP's Committee on Bioethics (2016) and Wasserman et al. (2019). Certainly, assent should be assessed as frequently as possible (AAP, 2016; BACB, 2020), and the client's choice to assent or not should carry weight in the therapeutic decision (AAP, 2016). However, if the client's choice is going to be outweighed by other factors, it is important to consider the potential harm of not giving the client the opportunity to assent and not honoring the client's choice. Thus, decisions about whether to provide an assent opportunity to a client when the procedures are necessary should probably be made on an individual basis, with careful consideration given to the client's dignity and the therapeutic relationship. In cases where assent will not be solicited because the harm of doing so would outweigh the benefits, it is still important to maximize the client's involvement with the therapeutic process as much as possible. As suggested by the AAP's Committee on Bioethics (2016), that may include carefully communicating the procedure to the clients along with an explanation for why they cannot choose whether they will participate. It may also be helpful to seek the client's input on peripheral components of the necessary procedure so that the client can still exercise some autonomy without interfering with the essential components of the procedure.[5] For example, a client may not get to choose whether they take lifesaving medication, but they may get to choose the type of drink used to take the medication.

Another example of a context in which assent may be countertherapeutic is when client preference for treatment options and treatment efficacy do not align. Although client preference for treatment components may align with or even predict treatment efficacy in some cases (Matter & Zarcone, 2017), they may not align in others (Winborn et al., 2002). When client preference for treatment components and treatment efficacy do not align, behavior analysts must make individualized decisions that balance the client's habilitation and personal choice (Bannerman et al., 1990). For example, a client may prefer the use of a communication modality that is associated with higher rates of challenging behavior than an alternative modality. If the client's challenging behavior is considered severe and the difference in treatment efficacy is pronounced across the two treatment options, it may be advantageous to prioritize the more efficacious treatment to prevent harm to the client. If the client's behavior is innocuous, prioritizing treatment efficacy over client preference may not be as crucial.

When making individualized decisions about assent and treatment efficacy, behavior analysts should consult with the client's stakeholders to try to consider all the relevant variables. One strategy that might prevent dilemmas related to unaligned treatment preference and efficacy is only providing treatment options that are efficacious when assessing a client's treatment preferences. In fact, knowingly giving clients the opportunity to choose a problematic treatment could be seen as unethical. Thus, treatment options should be carefully selected when arranging choice opportunities for clients. If contradictions still occur between client preference and treatment efficacy after the treatment options were carefully selected, the reason the contradiction occurred should be considered. Two variables that might contribute to contradictions are the client's skill set and reinforcement histories with the treatment components. These variables and others should be assessed by the behavior analysts and stakeholders to help them maximize opportunities for assent while preventing harm to the client.

Assessing assent-related skills

Behavior analysts serve clients with a very wide range of skills. Some clients may have robust vocal-verbal communication skills that allow them to benefit from and participate in spoken and written assent arrangements.

[5]That is not to imply that assent on peripheral components of a procedure is equally important to assent on the primary components. It is just meant as an alternative when full assent is not possible.

Other clients may have robust verbal communication skills but not engage in vocal communication. Still others may have very limited communication skills. A goal for arranging assent procedures should be to individualize them based on the client's prerequisite skills to maximize assent opportunities. Skills related to assent procedures should be assessed and taught when lacking or absent (Bannerman et al., 1990).

The most fundamental skill for clients to engage in assent procedures is discriminating between at least two different activities because discriminating between options is a prerequisite to choosing between two or more options. Discriminating different options involves attending to the critical components of a procedure. Thus, behavior analysts must help their clients contact the critical components, which can be done directly or indirectly. For example, indirect exposure to the critical components of a procedure can involve spoken and written communication and observational learning, whereas direct exposure to the critical components of a procedure requires facilitating experience with the applicable activities. Indirect exposure has an advantage over direct exposure in that it does not require exposure to the applicable activities prior to assent. Thus, indirect exposure provides more independence to the clients throughout the assent process. However, some exposure may be necessary for some clients to give them an opportunity to learn the procedures so that they can indicate their preferences. A client may need varying amounts of exposure to different procedures to discriminate between them, depending on their skill level. Regardless of the amount of initial exposure necessary, experience with the procedures can build familiarity, like indirect exposure, albeit in a less efficient manner. When a client does not have the skill set to discriminate between procedures after repeated exposures, that skill may be an especially important treatment goal to prioritize so that the client can engage in the assent process as quickly as possible (Bannerman et al., 1990; Breaux & Smith, 2023).

A second fundamental skill that is necessary for assent is choosing between at least two different options. Choosing builds on discrimination skills and adds the selection of the preferred option (Peterson et al., 2021; Rajaraman et al., 2023). Thus, choosing goes beyond simply identifying superficial differences between options (i.e., discriminating the option) by including an evaluative component to the selection. The evaluation of choice options can be influenced by many variables, including the short- and long-term effects of the choice (Peterson et al., 2021; Rajaraman et al., 2023).

Like any behavior-analytic practice, efficiency is important when arranging assent. Thus, an assessment of the client's prerequisite skills should be conducted to identify the procedures they would benefit from most. For example, some clients who have advanced communication skills may benefit from a traditional assent process, whereas others may require adaptations to the process or even teaching of prerequisite skills before they can benefit from assent procedures. Common behavior-analytic skill assessments like the Verbal Behavior Milestones Assessment and Placement Program (VB-MAPP; Sundberg, 2008) provide helpful information about a client's language and prelanguage skills that could help identify potential prerequisite skills for assent.

Arranging assent procedures and teaching assent-related skills

The standard assent arrangement involves providing a client with a spoken or written description of proposed procedures, asking them if they would be willing to participate in those procedures, and giving them the opportunity to withdraw their assent throughout the procedure (Morris et al., 2021). Although spoken and written communication about procedures could potentially be an effective and efficient method for facilitating assent with some clients, previous research (e.g., Northup, 2000; Northup et al., 1996; Wilder et al., 2003) has demonstrated that children's spoken reports do not always align with their actual preferences. Thus, spoken and written communication of treatment procedures are susceptible to complications even when clients have typical communication skills. Complexities are increased when behavior analysts work with clients who may have significant communication difficulties. Because behavior analysts work with a wide range of clients who have different repertoires, including those with communication difficulties, they must be familiar with adaptive ways to approach assent.

Assent procedures should be arranged to best support individual clients in the context of making therapeutic decisions. To help create a framework for assent that can be adapted to fit client-specific skills, Morris et al. (2021) translated four essential components of an assent process that were originally proposed by the American Academy of Pediatrics' Committee on Bioethics (1995) into a behavior-analytic framework. The components proposed by the Committee on Bioethics and translated by Morris et al. were designed to provide clear guidelines for the process of obtaining assent. The original AAP's Committee on Bioethics components were a helpful starting place but used vague language. Thus, Morris et al. called for a behavioral translation of the criteria to provide clarity on the exact steps that should be involved in a basic assent arrangement.

Since Morris et al. (2021) originally translated the components of assent described by the AAP's Committee on Bioethics, an updated policy statement was issued by the AAP's Committee on Bioethics (2016) that specified four aspects of assent that they consider the minimum elements. The minimum elements of assent listed in the updated AAP's Committee on Bioethics policy are similar to the recommendations summarized by Morris et al.

The current AAP's Committee on Bioethics' recommendations are to (a) help the client achieve an awareness of the situation, (b) tell the client what to expect from the procedures, (c) clinically assess the client's understanding of options, and (d) solicit an expression of the client's willingness to accept care. An updated behavioral translation for those components (based on the translations provided by Morris et al., 2021) is (a) acquaint the client with the relevant treatment options, (b) establish discriminative stimuli for the treatment options, (c) test and confirm the stimulus control of the discriminative stimuli, and (d) arrange a choice. Each guideline involves critical considerations that should be evaluated by behavior analysts as they plan assent arrangements.

Acquaint the client with the relevant treatment options

Acquainting clients with the relevant treatment options can be conceptualized as helping the client learn the critical components of treatment options that will allow them to accurately predict the experience of participating in the procedures in question. Ideally, acquainting clients with treatment options would involve as little direct exposure to the procedures as possible because preliminary exposure to procedures would necessarily be done without assent. For clients with strong communication skills, acquainting them to the treatment options may be achieved through a vocal-verbal description of the procedures (i.e., the creation of a rule; Catania, 2013; Hayes & Hayes, 1989). The benefit of using verbal instructions when presenting a choice is that they reduce the amount of direct exposure a client would need to have in a procedure before they can make a choice.

For clients with strong observational learning skills, modeling the procedures with another client or role-playing therapist may be another strategy for sufficiently acquainting a client with the treatment options. Although there is no published research on the use of observational learning with assent, several studies have demonstrated the use of observational learning arrangements to help children with disabilities acquire skills (e.g., Castro & Rehfeldt, 2016; Rehfeldt et al., 2003; Solares & Fryling, 2019). Like instructions, observational learning arrangements could be beneficial if they reduce the amount of direct exposure a client would need to become sufficiently acquainted with it. However, it is important to remember that clients who can follow spoken instructions and respond vocally may not always have correspondence between their verbal responses and their preferences (Northup, 2000; Northup et al., 1996). Thus, caution is warranted when using verbal descriptions and models regardless of the client's prerequisite skills.

For clients who do not respond to indirect contingencies like verbal descriptions and models, direct exposure to the procedures is likely necessary to help them build familiarity with them (Catania, 2013).[6] Even when clients do have the prerequisite skills to potentially benefit from verbal descriptions and models, direct exposure to the procedures may still be helpful and reduce challenges related to inaccurate verbal reports. To arrange direct exposure to a procedure, the client should be guided through the process of experiencing the essential components of the procedure, including the basic arrangement and relevant potential adaptations. The amount of exposure necessary to acquaint a client with the procedure likely varies by client and procedure (Dube & McIlvane, 2002). The general goal of preliminary exposure to a procedure is that the client experiences the representative components enough to establish familiarity with the procedures.

Establish discriminative stimuli for the treatment options

While the client is being acquainted with a procedure, discriminative stimuli associated with the various treatment options should be established so that the clients have an opportunity to select one of the stimuli as a way of indicating their choice (Hanley et al., 1997; Morris et al., 2021). For clients with strong communication skills, the discriminative stimuli associated with the various treatment options could be a word or phrase that the client uses to indicate their willingness. For clients who do not have strong communication skills, the discriminative stimuli associated with the various treatment options might need to be a bit more contrived, such as an icon that depicts a critical feature of the procedure (e.g., Lugo et al., 2019) or arbitrary stimuli that have been associated with the procedure (e.g., Hanley et al., 1997).

Test and confirm the stimulus control of the discriminative stimuli

Before discriminative stimuli associated with various treatment options are used in an assent procedure, they should be tested to confirm that they function as intended. For example, when a client says "yes" when asked if they are willing to participate in a procedure or select an icon indicating which treatment condition they prefer, it is important that the response reflects the client's interests and preferences. It is possible that some clients say "yes" when asked any question without considering the question or that they select random icons when given an array instead of carefully selecting the icon associated with their interests. To avoid arbitrary responses, the discriminative stimuli should be tested prior to the assent procedures.

[6] See Catania (2013) for more information for verbally governed and contingency-shaped behavior.

There are a few important considerations when evaluating the stimulus control of discriminative stimuli prior to arranging assent. The first is that previous research has indicated that listener identification and tacting skills are correlated with successful stimulus discrimination (Pizarro et al., 2021). Thus, it might be helpful to assess listener identification and tacting related to the discriminative stimuli for the assent arrangement. The second consideration is that the correspondence between a client's selections and their behaviors within the procedure might be a helpful indication of the validity of the selections (Sigafoos et al., 2007). For example, when a client selects the discriminative stimuli associated with one procedure and then subsequently engages in behaviors that better correspond to another procedure or escape and avoidance behaviors, such behaviors could indicate that the client does not intend to participate in the procedure despite having appeared to agree to the procedures. The final consideration for evaluating the stimulus control of discriminative stimuli associated with an assent arrangement is that it may be helpful to isolate individual components of a treatment before evaluating an entire treatment package if a client is likely to struggle with the complex discrimination needed to evaluate multiple treatment components within a treatment package.

Arrange a choice

After the client has been acquainted with their treatment options and discriminative stimuli have been established and tested for each of the options, the assent procedure can be arranged via a choice procedure (Morris et al., 2021). The basic goal of a choice procedure is to present the client with their treatment option(s) and allow them to choose whether to engage in any of the options. In some cases, this choice could be arranged via traditional assent procedures that involve spoken affirmation. However, specific prerequisite skills are obviously necessary for that arrangement. A more accessible format for arranging choice is a concurrent-chains assessment (Morris et al., 2021). A concurrent-chains assessment involves presenting discriminative stimuli associated with different choices simultaneously and allowing the client to choose the option they prefer.

If a client does not have the prerequisite skills to discriminate between discriminative stimuli associated with the procedure, the arrangement could be adjusted to allow the client to directly choose an activity instead of an intermediary stimulus while they work on the skills needed to choose between the discriminative stimuli. Arranging for the client to directly choose the procedure while following the rest of the concurrent-chains assessment (Hanley et al., 1997) procedures is known as a concurrent-operants assessment (Peck et al., 1996). The complication with a concurrent-operants arrangement is that it requires all components of a procedure to be present when presenting the choice to the client, which can create logistical complications. For example, choices that require different physical locations, like lessons in a classroom vs. private study room, would be difficult to arrange in a concurrent-operants arrangement if the locations are not directly next to each other.

Although concurrent-chains and concurrent-operants assessments may be effective ways of evaluating choice and preference without the need for a robust vocal-verbal repertoire, they may not meet every client's needs. Thus, assent procedures should always be individualized. What is important to keep consistent across choice arrangements when assessing assent is that the arrangement always involves at least two options. At a minimum, there should be an option to engage in a procedure and an option to withhold from engaging in a procedure—sometimes referred to as a control. If multiple procedures are available to choose from, then the choice options could include each procedure in addition to the control (i.e., the option to withhold from engaging in any procedure). Controls are a crucial component of assent because they give a client the opportunity to dissent (i.e., completely decline from engaging in a procedure) rather than being constrained to select a treatment option. The problem with constraining choices to only treatment options without the opportunity to dissent is that the results would only indicate relative preference of the available options—not the actual interest in the choices. For example, if a client selects a noncontingent reinforcement procedure when only given the opportunity to choose between it and a differential-reinforcement-of-other-behavior procedure, the only thing that is apparent is that they prefer noncontingent reinforcement to differential reinforcement of other behavior—it is unclear whether they are assenting to participate in the noncontingent reinforcement treatment. It is possible that both treatment options are undesirable or aversive to the client and that they are selecting the least bad option. To avoid confusion around choice indicating assent, a control option should be included in the assent arrangement. For example, in the noncontingent reinforcement and differential-reinforcement-of-other-behavior example, the selection of noncontingent reinforcement would have indicated assent if a control option was available in addition to the differential-reinforcement-of-other-behavior option.

Arranging a fair choice

It is essential that the choice to participate or not participate in a procedure be free of coercion and other undue influences (Protection of Human Subjects, 2018). Some may interpret this requirement of assent to mean that assent must be arranged as a free choice. However, the term free choice could be controversial from a radical behaviorism perspective because it could be taken to

mean free of all influence. Bannerman et al. (1990) may have summarized the potential concern with the concept of a free choice best when they said, "From a behavior-analytic perspective, options in life are valued, but choice is anything but free" (p. 80). Thus, because the concept of free choice may be difficult to reconcile from a radical behaviorism perspective, it may be beneficial to conceptualize choices that are free from undue influence as *fair choices* instead of free choices.

Arranging fair choices requires the careful identification and management of problematic influences. The complication is that variables that influence choice are pervasive, so determining which influences are problematic and which are not is complicated. Like any behavior, choice is sensitive to environmental contingencies, such as differences in the dimensions of reinforcement among the options (Peterson et al., 2009). Therefore, the outcomes of choices will inevitably influence choices, as might contextual variables like the setting where the client is making the choice. For example, a child may be more likely to assent to participate in a reading lesson if they are asked to participate in that lesson during an academic activity they dislike (e.g., math) than they would if asked to participate during an activity they like (e.g., recess). The key is not eliminating all influences on choice—that would not be possible. Instead, the key to establishing fair choice is eliminating coercion and undue influences.

One way that coercion could be inappropriately used in assent contexts is by creating forced choices of undesirable options. Forced choices can be defined as choice arrangements that do not include a control choice (i.e., the option to not choose). Forced choices can be problematic when assessing preference for the reasons discussed in the previous section. However, they are not necessarily coercive unless they are forcing the choice of two undesirable options. A famous example of a forced choice between undesirable options was depicted in a movie whose name has been taken as the popular idiom to describe the idea—*Sophie's Choice* (Pakula, 1982). In the movie, a mother facing the horrors of a holocaust camp with two children is given the "choice" to select only one of her children to be spared and taken away from the camp. Clearly, the mother's (i.e., Sophie's) real choice would be to save both of her children. However, her options are constricted to two horrendously undesirable options. Whatever selection Sophie makes in that awful moment could hardly be considered a choice at all, much less a fair choice, given that she is being forced to choose between two undesirable options.

A second way that coercion could be inappropriately used in assent contexts is by creating lopsided contingencies (i.e., contriving disproportionate outcomes for the choices being presented), such as threatening ultimatums. For example, a teacher who is seeking assent from their student for a group activity may tell the student that they can choose to participate in the group activity or spend the rest of the week in detention. If the student decides to engage in the group activity under the threat of going to detention for a week, it could hardly be considered assenting. To avoid lopsided assent arrangements in practice, it could be tempting to overcorrect by trying to avoid any differential outcomes of the choice options. For example, after the teacher learns that creating lopsided contingencies to try to coerce their student into the group activity is problematic, they may erroneously believe that the outcomes for choosing to participate in the group activity or not should be treated the same exact way. However, allowing or arranging differential outcomes for choice options is not necessarily coercive or unfair. In fact, often, different outcomes are a natural consequence of different choices. For example, the group activity that the teacher is trying to get the student to engage in may naturally involve enjoyable interaction with peers, fun physical movement, and other entertaining activities, whereas sitting out of the activity might naturally involve the client being bored at her desk while waiting for her peers to finish the activity.

Arranging fair choices does not require contriving equivalent outcomes for all possible choices. As shown in the group activity lesson example, the outcome of some activities will naturally differ. Other times, it may be appropriate to arrange differential outcomes for the choice options. For example, providing contingent reinforcement to a student for participating in a group activity instead of sitting out of the activity would likely be considered a fair choice even though engaging in the group activity and not engaging in the group activity would result in different outcomes because the choice arrangement is not coercive or lopsided. When evaluating the fairness of choice outcomes in an assent context, at least two variables should be considered. The first variable is the naturalness of the choice outcomes. When choices naturally produce different outcomes, like having fun with peers in a group activity or sitting alone and being bored, the choice outcomes certainly differ. However, allowing clients to contact the natural outcomes of their choices is likely not coercive or problematic in most contexts. In fact, attenuating the naturalistic outcomes of choices could lead to long-term problems because it could prevent a client from contacting naturalistic reinforcers and punishers.

The second variable that should be considered when evaluating the fairness of choice outcomes in an assent context is the social acceptability of the options. Social acceptability of assent arrangements means that stakeholders (e.g., individuals from society at large, individuals from the client's community, caregivers, and the clients) judge the choice options in the assent arrangement to be fair. Part of the process of evaluating the social acceptability of choice options is automatically embedded in the consent process prior to arranging assent procedures because part of the consent process would involve the guardian evaluating the procedures to

be used. However, other stakeholders involved with the client may not be part of the formal consent process but may provide valuable insight into the social acceptability of the choice options. For example, a teacher may have valuable advice on choices that fit the contextual needs of the students within their school. Thus, behavior analysts should discuss the choice options and their naturalistic and contrived outcomes with relevant stakeholders throughout the evaluation process and incorporate their feedback as much as possible to ensure fair choices.

Selecting opportunities to assess assent

Opportunities to make choices are ubiquitous. Throughout the course of a client's day in treatment, decisions must be made constantly including, for example, what the client is going to eat for lunch, what lessons to implement, and how to adjust to an unforeseen circumstance. An important consideration for arranging assent opportunities is which choices are relevant and meaningful to assent. Although assent is a type of choice, not all client choice can be considered assent (i.e., client choice and preference are not synonymous with assent). Assent only pertains to the selection of therapeutic procedures to which the client will be exposed. For example, a client choosing what to eat, what to play with, and how to spend their free time are important components of client-centered services that maximize client independence and autonomy, but they may not be examples of assent if they are not directly pertaining to therapeutic decisions. Thus, the most basic component of selecting opportunities to arrange assent is determining whether the activity in question pertains to treatment procedures.

As previously stated, assent is a dynamic process that extends beyond a single event at the start of the therapeutic relationship (Breaux & Smith, 2023). At the most basic level, because assent is focused on a client's willingness to participate in a procedure, assent would ideally be assessed at least during important changes to procedures, like the implementation of a new procedure or a significant modification to an existing procedure. However, there are logistical and practical limitations to arranging for assent before all changes to procedures, there are potentially negative effects of providing too many choices, and there are problems with only assessing assent prior to exposure to the procedures.

The scope and purpose of therapeutic services vary greatly across the practice of applied behavior analysis and have significant implications on assent practices. For example, the number and type of opportunities to arrange assent differ widely across early intervention, severe behavior services, and general education. Severe behavior services are different from early intervention and general education because much of the services are focused on establishing a safer environment and behavioral repertoire so that the client can move on to less restrictive services. Thus, severe behavior services are probably more likely to use procedures that are necessary irrespective of assent. Alternatively, the services provided in general education settings may have more treatment options than do severe behavior services but less opportunity to make individualized therapeutic decisions because of the focus on classrooms rather than individual clients. Behavior analysts must identify the idiosyncratic contextual variables related to the scope of their services and their effects on assent to maximize assent opportunities within their therapeutic contexts.

Therapeutic procedures require endless choices to be made. For example, one lesson requires decisions about the specific content of the lesson, the consequence strategy involved with the lesson, the speed at which the lesson is presented, and the overall duration of the lesson. Although it might seem ideal to solicit the client's assent to every component of every procedure, that might not be practical or appropriate. In fact, research has shown that as the number of options within a choice arrangement increases, the probability of an organism choosing decreases, a phenomenon known as "the paradox of choice" or choice overload (Miller et al., 2017; Schwartz, 2004). This means that increasing the number of choice options too much could subsequently negatively affect a client's choice making. To avoid negative effects related to presenting too many choice options and opportunities, the social acceptability of the number and target of assent opportunities should be assessed. Specifically, stakeholders should help select which opportunities should be prioritized for assent with consideration of important variables such as the likelihood that the client's willingness to participate in related procedures is going to change and the frequency of procedural changes. Because a client may be exposed to several therapeutic procedures that can be made up of numerous components, it could be helpful to focus assent procedures on the most salient features of the most common and influential components of procedures that the client is going to experience. This could be especially true for clients who have difficulty discriminating between multifaceted treatments.

Finally, although arranging for assent prior to important procedural changes prevents the client from being exposed to procedures to which they have not agreed, it does not fully account for the dynamic nature of assent. That is, obtaining assent at the beginning of a procedure does not necessarily indicate that the client will maintain a willingness to participate throughout the rest of the procedure or subsequent procedures. A client's willingness to participate in a procedure could change from day to day, session to session, trial to trial, or even moment to moment. Thus, ongoing assessment of assent may be warranted. Ongoing assessment can involve formal reevaluations and check-ins or informal assessment of assent. When clients demonstrate signs that they are likely to change their willingness to participate in procedures or procedural variations are common, reevaluations and check-ins could be embedded more frequently than when clients demonstrate signs that they are not

likely to change their willingness to participate in procedures or procedural variations are not common. When formal reevaluations and check-ins are not possible or practical, informal assessments might be beneficial.

Informally assessing assent

Although formalized assent procedures should be prioritized as much as possible, informal strategies may be useful in conjunction with formalized assessments to provide supplemental opportunities to gauge assent. The difference between formal and informal assent assessment procedures can be compared to the difference between reinforcer assessments and some types of preference assessments. Reinforcer assessments involve evaluating the reinforcing effects of a stimulus by presenting the putative reinforcer contingent on a response and then measuring the frequency of the response (Cooper et al., 2019). Preference assessments, generally, involve measuring the selection of stimuli when presented with an array of options (Hagopian et al., 2004; Piazza et al., 2011). Thus, reinforcer assessments directly evaluate the reinforcing value of a stimulus and preference assessments indirectly measure the potential reinforcing effects of a stimulus by evaluating a related behavior that may or may not reflect the reinforcing effects of a stimulus (Hagopian et al., 2004). Even though preference assessments do not directly measure the reinforcing value of stimuli, they are commonly used in behavior analysis because they are relatively simple to administer and can be reliable at predicting the reinforcing effects of stimuli if selected and administered carefully (Kang et al., 2013; Piazza et al., 2011).

Like reinforcer assessments, formal assent assessment procedures directly measure the variable of interest, and like preference assessments, informal assent assessment procedures can be used to measure behaviors that may be related to the variable of interest. For assent assessment procedures, the variable of interest is assent. Thus, formal assent assessments can provide affirmative information about assent because they involve the direct assessment of assent, whereas informal assent procedures only provide information about behaviors that may be associated with assent. Behaviors that are targeted in informal assent procedures do not provide affirmative information about assent and, therefore, should not be mistaken as assent itself and may be better described as assent-adjacent behaviors. One clear example of a behavior that is associated with assent that can provide important information about assent is assent withdrawal.

Assent withdrawal

A critical component of assent is that it can be withdrawn at any time (Breaux & Smith, 2023; Flowers & Dawes, 2023; Morris et al., 2021). Thus, when assent is obtained, it is important that possible assent-withdrawal behaviors[7] be monitored for and honored throughout the relevant procedure. Informal assent assessment procedures can assist with the identification of assent-withdrawal behaviors throughout a procedure, but there are important complications to assessing assent withdrawal that should be acknowledged and accounted for during the process.

The first complication with assessing for assent-withdrawal behaviors is that the lack of assent withdrawal could potentially be mistaken as an affirmation that the client is continually assenting to the procedures. However, guidelines like the Federal Policy for the Protection of Human Subjects make it clear that the lack of assent withdrawal is not equivalent to assent by stating, "mere failure to object should not, absent affirmative agreement, be construed as assent" (Protection of Human Subjects, 2018, 46.402). The reason it is important to not mistake a lack of assent withdrawal as assent is that the lack of assent-withdrawal behaviors can occur for several reasons that are not indicative of actively assenting. For example, a client may not have the skills needed to demonstrate a distinguishable assent withdrawal behavior or may experience competing contingencies that suppress assent-withdrawal behaviors during the procedures. Thus, although assent withdrawal is important because it indicates that the client is no longer willing to participate in the procedure, the absence of assent withdrawal is not necessarily indicative of ongoing assent.

The second complication with assessing assent-withdrawal behaviors is that some assent-withdrawal behaviors may be difficult to ascertain because they can be idiosyncratic to clients. Statements like, "I do not want to participate in this procedure any longer," may be an abundantly clear indication of assent withdrawal if the person implementing the procedure speaks English, but many clients may not communicate assent withdrawal that clearly or directly. When clients do not have the skills needed to communicate assent withdrawal directly, behavior analysts can either help the client learn specific assent-withdrawal behaviors so that assent withdrawal can be directly measured or attempt to measure assent withdrawal indirectly.

Teaching specific unambiguous assent-withdrawal behaviors instead of relying on the client's potentially limited repertoire of assent-withdrawal behaviors reduces the risk of ambiguity and confusion about identifying assent withdrawal and enables the direct measurement of assent withdrawal. For example, a client selecting an icon, pressing a button, or moving to the side of a room that has been established as an official assent-withdrawal response is much easier to identify and consequate than a client who frowns or seems less engaged in a lesson, and

[7]The term *assent withdrawal* is used here distinctly from the term *dissent*. Dissent is when a client declines to participate in a procedure and assent withdrawal is when the client initially provides assent but then revokes it. Assessing dissent is automatically involved in the process of assessing assent because it is the alternative option to assent. Assent withdrawal occurs after assent has been obtained and, therefore, requires distinct considerations.

the former behaviors more directly communicate assent withdrawal than do forms of indirect indicators. Alternatively, indirect measures of assent withdrawal face the same problems as do indirect measures of assent. Namely, indirect measures of assent withdrawal may not always indicate assent withdrawal. For example, disruptive behavior during a session could be taken as an indication that the client is upset by the procedures and wishes to withdraw their assent. However, disruptive behaviors can occur for several reasons that have nothing to do with the client being upset or not wanting to participate in the procedure, such as the client finding the ruckus caused by the disruptive behavior reinforcing. Thus, direct indications of assent, taught or not, are much more reliable because they represent the actual behavior of interest rather than assent-adjacent behaviors.

Assent-adjacent behaviors

Assent-adjacent behaviors are behaviors that appear related to but are not direct indications of assent or assent withdrawal. Behaviors like the act of saying, "I am willing to participate in the procedure" or selecting the treatment option when exposed to the concurrent-chains or concurrent-operants assessments described earlier in this article are clear and direct indications of assent. Thus, when those behaviors are observed, it can be said that assent was obtained. Behaviors like engagement, approach, and indices of happiness (Parsons et al., 2012; Ramey et al., 2022) could potentially be related to assent in some situations, but they do not directly indicate assent and, therefore, cannot provide a clear or unambiguous indication that assent was obtained.

If not understood as being distinct from direct indications of assent, assent-adjacent behaviors have the potential to lead to inaccurate conclusions about a client assenting to a procedure. An example of an assent-adjacent behavior that could potentially be mistaken as assent is smiling. Smiling is often associated with happiness, satisfaction, and other positive feelings in Western cultures (Fang et al. 2020; Krys et al., 2013). As a result of the positive connotations of smiling, some may be tempted to conclude that smiling during treatment sessions is an indication of assent. However, smiling can occur for many reasons other than happiness, satisfaction, and other positive feelings, such as feeling awkward (Ansfield, 2007). In fact, many people report smiling or nervously laughing when feeling uncomfortable, which would not be desirable in an assent context. Assent requires a client to be acquainted with all the applicable details of the procedures and related contingencies. Actively and even joyfully engaging in an activity can be observed in the absence of the client being acquainted with relevant treatment options and, therefore, does not meet the criteria for assent.

When assent-adjacent behaviors are understood as distinct from assent, they have the potential of being meaningful indicators of other socially significant components of treatment. For example, client engagement, approach, indices of happiness, and other assent-adjacent behaviors can be important indicators of overall client satisfaction and progress toward treatment goals related to independence. Thus, assent-adjacent behaviors could play a crucial role in overall treatment evaluation for some clients separately or in conjunction with the direct evaluation of assent.

Finally, like assent and assent-withdrawal behaviors, assent-adjacent behaviors are idiosyncratic across clients and contexts. Although behaviors like engagement and approach might seem like universal assent-adjacent behaviors that would be consistent across all clients, they may not be related to assent at all in some contexts. For example, someone may engage in an activity because they were taught to always comply with instructions from authorities. In that case, engagement should not be considered an assent-adjacent behavior. Thus, when considering assent-adjacent behaviors, behavior analysts should identify individualized assent-adjacent behaviors that are meaningful to the client in question and clearly distinguish the assent-adjacent behaviors from actual assent.

FUTURE RESEARCH

There is no shortage of areas that need more research on the topic of assent and client involvement in therapeutic decisions. More research on client prerequisite skills and particular assent procedure arrangements would be most useful to behavior analysts attempting to design assent procedures to fit their clients' idiosyncratic needs. Research could evaluate the effectiveness of various methods of acquainting clients to treatment such as traditional spoken and written methods, enhanced instruction that could include modeling and observational learning, and direct exposure to the treatment conditions on different types of client profiles based on the client's prerequisite skills and needs.

Research focused on strategies that can be used to teach clients the prerequisite skills needed to benefit from existing assent procedures is greatly needed because behavior analysts work with a wide range of clients with varying skill sets. Ultimately, one of the foundational components of assent is choice. Thus, research evaluating the skills needed to engage in self-determination (see Peterson et al., 2021) and supported decision making (Arstein-Kerslake et al., 2017; Breaux & Smith, 2023) will be applicable to assent and several other topics related to client involvement in therapeutic decisions. Specifically, research evaluating the correspondence between different skill levels indicated on behavior-analytic skill assessments and responsiveness to different assent procedures (e.g., spoken instructions vs.

concurrent-chains assessment) would be powerful because it could help identify objective criteria to guide the use of different assent procedures.

The identification and potential development of assent-adjacent behaviors seem to be relatively popular topics within the area of assent (Breaux & Smith, 2023; Flowers & Dawes, 2023; Morris et al., 2021). However, much more empirical research is needed on this topic. As previously stated, assent-adjacent behaviors are most likely idiosyncratic to clients, so research focused on identifying client-specific assent-adjacent behaviors and teaching unambiguous assent-adjacent behaviors is critical. Researchers could evaluate modalities and teaching procedures that could be used to help establish contrived assent-adjacent behaviors instead of relying on naturalistic assent-adjacent behaviors. Because assent-adjacent behaviors are potentially at high risk of being confused with direct indications of assent, all future research in this area should differentiate between assent and assent-adjacent behaviors and clearly label which they are targeting.

Future research could evaluate strategies for evaluating the fairness of a choice, the processes for engaging stakeholders in considerations of fair choice arrangements, and the identification of risk factors of unfair choice arrangements. Given the subjective nature of the concept of fair, research in this area will likely benefit from incorporating social validity measures. Another research topic within this area that may be important to evaluate is the influence of fair choice on assent and assent-adjacent behaviors.

Finally, more research is needed on the topic of client involvement in therapeutic decisions and client-centered care. Assent focuses on the client's involvement in selecting therapeutic procedures. Several other therapeutic decisions are potentially just as important as are decisions about procedures, such as treatment goals. Future research should focus on identifying strategies for increasing and improving all client-centered practices in behavior analysis, including client involvement in therapeutic decisions. Questions that will be interesting to explore on this topic are whether there is an interaction effect when assent is used concurrently with other client-centered practices (i.e., is assent more likely when other client-centered practices are used) and how to determine the optimal amount of client involvement in therapeutic decisions.

CONCLUSION

Applied behavior analysis has a long history of taking a client-centered approach to treatment and striving to involve clients in therapeutic decisions. As indicated in the well-known articles cited in the introduction to this article, some of the most prominent and respected behavior analysts of all time have advocated for client-centered practices. However, the historic articles calling for client-centered practices did not provide evidence-based, practical recommendations for how to maximize client involvement in therapeutic decisions. More recent articles have specifically discussed assent in behavior-analytic research (Morris et al., 2021) and assent in behavior-analytic practice (Breaux & Smith, 2023; Flowers & Dawes, 2023), but empirical support of the recommendations and suggestions for future research were limited in those articles. Thus, the purpose of this article was to extend previous literature focused on assent and client involvement in therapeutic decisions by elaborating on a working definition and conceptualization of assent, providing preliminary practical considerations for client assent with diverse clients and contexts based on existing research, and highlighting areas within assent that would benefit from future research.

This article did not provide a task analysis on the exact procedures of arranging assent with clients. Although a step-by-step tool would be ideal for ease of use, it is the opinion of the authors of this article that assent is far too complex and that there is not enough information to be summarized in a table or flowchart that could be used across all clients. We fear that attempting a step-by-step tool on assent at this juncture would require oversimplifications that could lead to a misapplication of the information (Friman, 1995). Therefore, six considerations for assent were provided that are meant to help behavior analysts identify critical information about assent that they can use to inform their individual practices.

Assessing assent is a vital component of behavior-analytic practice. This article could not and did not address every possible nuance of assent practices. The recommendations provided throughout this article are based on resources available from other disciplines and sources, research related to similar topics like choice, and the experience and expertise of the authors. Thus, all the recommendations provided should be seen as preliminary considerations that are intended to help guide practice and research while more research on assent is conducted.

CONFLICT OF INTEREST STATEMENT

We have no conflict of interest to disclose.

ETHICS APPROVAL

No human or animal subjects were used to produce this article.

ORCID

Cody Morris https://orcid.org/0000-0003-4729-4280
Jacob P. Oliveira https://orcid.org/0000-0002-1487-2032
Jesse Perrin https://orcid.org/0000-0003-0665-8682
Caitlyn A. Federico https://orcid.org/0009-0008-2337-540X
Paula J. Martasian https://orcid.org/0009-0000-5085-7131

REFERENCES

American Academy of Pediatrics' Committee on Bioethics. (1995). Informed consent, parental permission, and assent in pediatric practice. *Pediatrics*, *95*(2), 314–317. https://pediatrics.aappublications.org/content/95/2/314.short

American Academy of Pediatrics' Committee on Bioethics. (2016). Informed consent in decision-making in pediatric practice. *Pediatrics*, *138*(2), Article e20161484. https://doi.org/10.1542/peds.2016-1484

Ansfield, M. E. (2007). Smiling when distressed: When a smile is a frown turned upside down. *Personality and Social Psychology Bulletin*, *33*(6), 763–775. https://doi.org/10.1177/01461672062973

Arstein-Kerslake, A., Watson, J., Browning, M., Martinis, J., & Blanck, P. (2017). Future directions in supported decision-making. *Disability Studies Quarterly*, *37*(1), Article 5070. https://doi.org/10.18061/dsq.v37i1.5070

Baer, D. M., Wolf, M. M., & Risley, T. R. (1968). Some current dimensions of applied behavior analysis. *Journal of Applied Behavior Analysis*, *1*(1), 91–97. https://doi.org/10.1901/jaba.1968.1-91

Bannerman, D. J., Sheldon, J. B., Sherman, J. A., & Harchik, A. E. (1990). Balancing the rights to habilitation with the right to personal liberties: The rights of people with developmental disabilities to eat too many doughnuts and take a nap. *Journal of Applied Behavior Analysis*, *23*(1), 79–89. https://doi.org/10.1901/jaba.1990.23-79

Baum, W. M. (2010). Dynamics of choice: A tutorial. *Journal of the Experimental Analysis of Behavior*, *94*(2), 161–174. https://doi.org/10.1901/jeab.2010.94-161

Behavior Analyst Certification Board. (2020). *Ethics code for behavior analysts*. https://www.bacb.com/wp-content/uploads/2020/11/Ethics-Code-for-Behavior-Analysts-2102010.pdf

Breaux, C. A., & Smith, K. (2023). Assent in applied behaviour analysis and positive behaviour support: Ethical considerations and practical recommendations. *International Journal of Developmental Disabilities*, *69*(1), 111–121. https://doi.org/10.1080/20473869.2022.2144969

Castro, M., & Rehfeldt, R. A. (2016). Comparing the efficacy of peer versus staff models on observational learning in adults with developmental disorders. *Journal of Developmental and Physical Disabilities*, *28*(4), 609–622. https://doi.org/10.1007/s10882-016-9498-9

Catania, C. A. (2013). *Learning* (5th edition). Sloan Publishing.

Cooper, J. O., Heron, T. E., & Heward, W. L. (2019). *Applied behavior analysis* (3rd edition). Pearson Education.

Dube, W. V., & McIlvane, W. J. (2002). Quantitative assessments of sensitivity to reinforcement contingencies in mental retardation. *American Journal on Mental Retardation*, *107*(2), 136–145. https://doi.org/10.1352/0895-8017(2002)107<0136:QAOSTR>2.0.CO;2

Fang, X., Sauter, D. A., & van Kleef, G. A. (2020). Unmasking smiles: The influence of culture and intensity on interpretations of smiling expressions. *Journal of Cultural Cognitive Science*, *4*, 293–308. https://doi.org/10.1007/s41809-019-00053-1

Flowers, J., & Dawes, J. (2023). Dignity and respect: Why therapeutic assent matters. *Behavior Analysis in Practice*, *16*(4), 913–920. https://doi.org/10.1007/s40617-023-00772-6

Fontes, R. M., & Shahan, T. A. (2021). Punishment and its putative fallout: A reappraisal. *Journal of the Experimental Analysis of Behavior*, *115*(1), 185–203. https://doi.org/10.1002/jeab.653

Friman, P. C. (1995). Take away their hammer: Logical and ethical problems in Range and Cotton's "Reports of assent and permission in research with children: Illustrations and suggestions." *Ethics & Behavior*, *5*(4), 349–353. https://doi.org/10.1207/s15327019eb0504_5

Hagopian, L. P., Long, E. S., & Rush, K. S. (2004). Preference assessment procedures for individuals with developmental disabilities. *Behavior Modification*, *28*(5), 668–677. https://doi.org/10.1177/0145445503259836

Hanley, G. P., Piazza, C. C., Fisher, W. W., Contrucci, S. A., & Maglieri, K. A. (1997). Evaluation of client preference for function-based treatment packages. *Journal of Applied Behavior Analysis*, *30*(3), 459–473. https://doi.org/10.1901/jaba.1997.30-459

Hayes, S. C., & Hayes, L. J. (1989). The verbal action of the listener as a basis for rule-governance. In *Rule-governed behavior: Cognition, contingencies, and instructional control* (pp. 153–190). Springer US.

Kang, S., O'Reilly, M., Lancioni, G., Falcomata, T. S., Sigafoos, J., & Xu, Z. (2013). Comparison of the predictive validity and consistency among preference assessment procedures: A review of the literature. *Research in Developmental Disabilities*, *34*(4), 1125–1133. https://doi.org/10.1016/j.ridd.2012.12.021

Katz, A. L., Webb, S. A., & Committee on Bioethics. (2016). Informed consent in decision-making in pediatric practice. *Pediatrics*, *138*(2), Article e20161485. https://doi.org/10.1542/peds.2016-1485

Krys, K., Hansen, K., Xing, C., & Szarota, P. (2013). Do only fools smile at strangers? Cultural differences in social perception of intelligence of smiling individuals. *Journal of Cross-Cultural Psychology*, *45*(2), 314–321. https://doi.org/10.1177/0022022113513922

Lugo, A. M., McArdle, P. E., King, M. L., Lamphere, J. C., Peck, J. A., & Beck, H. J. (2019). Effects of presession pairing on preference for therapeutic conditions and challenging behavior. *Behavior Analysis in Practice*, *12*(1), 188–193. https://doi.org/10.1007/s40617-018-0268-2

Matter, A. L., & Zarcone, J. R. (2017). A comparison of existing and novel communication responses used during functional communication training. *Behavioral Interventions*, *32*(3), 217–224. https://doi.org/10.1002/bin.1481

Miller, J. R., Kaplan, B. A., Reed, D. A., & White, L. D. (2017). Effects of array size on preschoolers' preference and engagement: A behavioral translation of choice overload. *Behavior Analysis: Research and Practice*, *17*(1), 74–83. https://doi.org/10.1037/bar0000067

Morris, C., Detrick, J. J., & Peterson, S. M. (2021). Participant assent in behavior analytic research: Considerations for participants with autism and developmental disabilities. *Journal of Applied Behavior Analysis*, *54*(4), 1300–1316. https://doi.org/10.1002/jaba.859

National Association of School Psychologists. (2020). *The professional standards*. https://www.nasponline.org/standards-and-certification/professional-ethics

Northup, J. (2000). Further evaluation of the accuracy of reinforcer surveys: A systematic replication. *Journal of Applied Behavior Analysis*, *33*(3), 335–338. https://doi.org/10.1901/jaba.2000.33-335

Northup, J., George, T., Jones, K., Broussard, C., & Vollmer, T. R. (1996). A comparison of reinforcer assessment methods: The utility of verbal and pictorial choice procedures. *Journal of Applied Behavior Analysis*, *29*(2), 201–212. https://doi.org/10.1901/jaba.1996.29-201

Pakula, A. J. (Director). (1982). Sophie's Choice *[Film]*. Universal Pictures.

Parsons, M. B., Reid, D. H., Bentley, E., Inman, A., & Perry Lattimore, L. (2012). Identifying indices of happiness and unhappiness among adults with autism: Potential targets for behavioral assessment and intervention. *Behavior Analysis in Practice*, *5*(1), 15–25. https://doi.org/10.1007/BF03391814

Peck, S. M., Wacker, D. P., Berg, W. K., Cooper, L. J., Brown, K. A., Richman, D., McComas, J. J., Frischmeyer, P., & Millard, T. (1996). Choice-making treatment of young children's severe behavior problems. *Journal of Applied Behavior Analysis*, *29*(3), 263–290. https://doi.org/10.1901/jaba.1996.29-263

Peterson, S. M., Aljadeff-Abergel, E., Eldridge, R. R., VanderWeele, N. J., & Acker, N. S. (2021). Conceptualizing self-determination from a behavioral perspective: The role of choice, self-control, and self-management. *Journal of Behavioral Education*, *30*(2), 299–318. https://doi.org/10.1007/s10864-020-09368-4

Peterson, S. M., Frieder, J. E., Smith, S. L., Quigley, S. P., & Van Norman, R. K. (2009). The effects of varying quality and duration of reinforcement on mands to work, mands for break, and problem behavior. *Education and Treatment of Children*, *32*(4), 605–630. https://doi.org/10.1353/etc.0.0075

Piazza, C. C., Roane, H. S., & Karsten, A. (2011). Identifying and enhancing the effectiveness of positive reinforcement. In W. W. Fisher, C. C. Piazza, & H. S. Roane (Eds.), *Handbook of applied behavior analysis* (pp. 297–396). Guilford Press.

Pizarro, E. M., Vollmer, T. R., & Morris, S. L. (2021). Evaluating skills correlated with discriminated responding in multiple schedule arrangements. *Journal of Applied Behavior Analysis*, *54*(1), 334–345. https://doi.org/10.1002/jaba.759

Protection of Human Subjects, 45 C.F.R. § 46 (2018). 45 CFR 46 | HHS.gov.

Rajaraman, A., Austin, J. L., & Gover, H. C. (2023). A practitioner's guide to emphasizing choice-making opportunities in behavioral services provided to individuals with intellectual and developmental disabilities. *International Journal of Developmental Disabilities*, *69*(1), 101–110. https://doi.org/10.1080/20473869.2022.2117911

Ramey, D., Healy, O., & McEnaney, E. (2022) Defining and measuring indices of happiness and unhappiness in children diagnosed with autism spectrum disorder. *Behavior Analysis in Practice*, *16*(1), 194–209. https://doi.org/10.1007/s40617-022-00710-y

Rehfeldt, R. A., Latimore, D., & Stromer, R. (2003). Observational learning and the formation of classes of reading skills by individuals with autism and other developmental disabilities. *Research in Developmental Disabilities*, *24*(5), 333–358. https://doi.org/10.1016/S0891-4222(03)00059-3

Schwartz, B. (2004). *The paradox of choice: Why more is less*. Harper Perennial.

Sigafoos, J., Ganz, J. B., O'Reilly, M., Lancioni, G. E., & Schlosser, R. W. (2007). Assessing correspondence following acquisition of an exchange-based communication system. *Research in Developmental Disabilities*, *28*(1), 71–83. https://doi.org/10.1016/j.ridd.2005.12.002

Skinner, B. F. (1999). *Cumulative record*. B. F. Skinner Foundation (Original work published in 1959).

Solares, L., & Fryling, M. J. (2019). Further evaluation of the stimulus pairing observation procedure with children with autism spectrum disorder. *The Analysis of Verbal Behavior*, *35*(1), 85–93. https://doi.org/10.1007/s40616-018-0101-6

Sundberg, M. (2008). *Verbal behavior milestones assessment and placement program: The VB-MAPP*. AVB Press.

Wasserman, J. A., Navin, M. C., & Vercler, C. J. (2019). Pediatric assent and treating children over objection. *Pediatrics*, *144*(5), Article e20190382. https://doi.org/10.1542/peds.2019-0382

Wilder, D. A., Wilson, P., Ellsworth, C., & Heering, P. W. (2003). A comparison of verbal and tangible stimulus preference assessment methods in adults with schizophrenia. *Behavioral Interventions*, *18*(3), 191–198. https://doi.org/10.1002/bin.136

Winborn, L., Wacker, D. P., Richman, D. M., Asmus, J., & Geier, D. (2002). Assessment of mand selection for functional communication training packages. *Journal of Applied Behavior Analysis*, *35*(3), 295–298. https://doi.org/10.1901/jaba.2002.35-295

Wolf, M. M. (1978). Social validity: The case for subjective measurement or how applied behavior analysis is finding its heart. *Journal of Applied Behavior Analysis*, *11*(2), 203–214. https://doi.org/10.1901/jaba.1978.11-203

Zayac, R. M., Van Stratton, J. E., Ratkos, T., Williams, M., Geiger, A., & Paulk, A. (2021). A preliminary assessment of the qualities and behaviors of exemplary practitioners: Perspectives from U.S.-based behavior analysts. *Behavior Analysis in Practice*, *14*(2), 342–351. https://doi.org/10.1007/s40617-020-00522-y

How to cite this article: Morris, C., Oliveira, J. P., Perrin, J., Federico, C. A., & Martasian, P. J. (2024). Toward a further understanding of assent. *Journal of Applied Behavior Analysis*, 1–15. https://doi.org/10.1002/jaba.1063