

Viewpoint

A Point of View About Fluency

Seth E. Tichenor,^a  Christopher Constantino,^b  and J. Scott Yaruss^c ^aDuquesne University, Pittsburgh, PA ^bFlorida State University, Tallahassee ^cMichigan State University, East Lansing

ARTICLE INFO

Article History:

Received June 21, 2021

Revision received September 15, 2021

Accepted September 28, 2021

Editor-in-Chief: Bharath Chandrasekaran

Editor: Julie D. Anderson

https://doi.org/10.1044/2021_JSLHR-21-00342

ABSTRACT

Purpose: This article presents several potential concerns with the common usage of the term *fluency* in the study of *stuttering* and people who stutter (or, as many speakers now prefer, *stutterers*). Our goal is to bridge gaps between clinicians, researchers, and stutterers to foster a greater sense of collaboration and understanding regarding the words that are used and meanings that are intended.

Method: We begin by reviewing the history of the term *fluency*. We then explore its usage and current connotations to examine whether the term meaningfully describes constructs that are relevant to the study of the stuttering condition.

Results: By highlighting current research and perspectives of stutterers, we conclude that the term *fluency* (a) is not fully inclusive, (b) encourages the use of misleading measurement procedures, (c) constrains the subjective experience of stuttering within a false binary categorization, and (d) perpetuates a cycle of stigma that is detrimental to stutterers and to the stuttering community as a whole.

Conclusions: We recommend that researchers and clinicians cease referring to stuttering as a *fluency disorder* and simply refer to it as *stuttering*. Furthermore, we recommend that researchers and clinicians distinguish between moments of stuttering (i.e., what stutterers experience when they lose control of their speech or feel stuck) and the overall lived experience of the stuttering condition.

In 1957, Dean Williams authored an article entitled “A Point of View about Stuttering.” In it, he challenged clinicians and researchers to consider stuttering through the perspectives of the people who experience it, so that a broader and deeper understanding of the many facets of the condition as a whole could be gained (Williams, 1957). Similarly, the intent of this article is to challenge clinicians and researchers to consider their use of the term *fluency*. We highlight current research and perspectives, both within and outside of stuttering research, to conclude that the term *fluency*, as it is most commonly used in the stuttering literature, (a) is not fully inclusive or representative of the stuttering experience, (b) encourages the use of misleading measurement procedures, (c) constrains the subjective experience of stuttering within a false binary categorization, and (d) perpetuates a cycle of stigma that is detrimental to people who stutter (or, as many speakers

now prefer, *stutterers*; Constantino, 2018) and to the stuttering community as a whole.

Fluency Is Not Fully Inclusive

The term *fluency* may perpetuate a culture of gatekeeping (see Barzilai-Nahon, 2008, for a discussion of *gatekeeping*), meaning that it may serve as a mechanism to limit inclusion. Use of the term may make it more difficult for some people who stutter to identify with the stuttering condition, to be included in the broader stuttering community, and to be labeled or identified as people who stutter. This gatekeeping may occur because the term *fluency* is widely used by researchers and clinicians both as an *ideal* (i.e., what the speech of people who do not stutter is observed to be) and as a *descriptor* for what is, to them, the most readily observed characteristic of stuttering (i.e., perceptibly disfluent speech). These two uses of the term have a long history in the field, and they appear in many ways, including the name often used to refer to the field as a whole (i.e., fluency disorders), as well as the names of professional associations and scientific journals for those

Correspondence to Seth E. Tichenor: tichenors@duq.edu. **Disclosure:** The authors have declared that no competing financial or nonfinancial interests existed at the time of publication.

who study stuttering and related conditions (e.g., International Fluency Association, *Journal of Fluency Disorders*). In providing his so-called “standard” definition of stuttering, Wingate (1964) used the word *fluency* to denote what stuttering *is* by virtue of what it is observed *not* to be, stating, “It is doubtful that there would be any disagreement that the fundamental observable characteristic of stuttering is a disturbance in the flow of speech” (p. 485). Wingate later stated, “In general usage [fluency] refers to the *ordinary speech of almost everyone*” (Wingate, 1988, p. 19, emphasis added). Later researchers have continued to use the term in this way. Starkweather (1987) stated, “People who are fluent are so skilled in the performance of speech and language behaviors that they do not need to expend much thought or energy to it. Sounds, words, and sentences fall easily from their mouths, without hesitation. . . *it is normal to be fluent*” (p. 11, emphasis added). The current usage of terms such as *stutter-like disfluency* and *non-stutter-like* (or “other”) *disfluency* are also based upon this underlying viewpoint. Yairi and Ambrose (2005) stated, “It is our position that, whatever else the clinical disorder of stuttering entails, there seems to be relatively little disagreement that the term stuttering refers to the domain of motor speech production and its disruption by speech disfluencies” (p. 19). Although stuttering research now widely acknowledges that linguistic, emotional, and cognitive factors also influence when and how stuttering occurs, this underlying assumption that the “primary symptoms [of the condition] are disfluencies” has not changed (Smith & Weber, 2017, p. 3).

On the one hand, decades of research have provided ample evidence that many people who stutter demonstrate relatively overt or readily observed behaviors that are labeled as “stuttering” (W. Johnson, 1959; Tichenor & Yaruss, 2019a; Van Riper, 1982; Yairi, 1982). On the other hand, a definition focused on surface behaviors (see Jackson et al., 2012) excludes the experiences of a significant portion of the population of stutterers who may appear to a listener to speak fluently yet still experience underlying disruptions in language planning or speech production that are characteristic of stuttering, as well as the well-documented negative consequences of the condition (Constantino et al., 2017; Douglass et al., 2019; Jackson et al., 2015, 2019; MacIntyre, 2012; Perkins, 1983, 1984, 1990; Quesal, 1989; Tichenor & Yaruss, 2018, 2019a, 2020; Vanryckeghem et al., 2004; Yaruss & Quesal, 2004). Initially, these so-called “covert” aspects of stuttering were thought to be less common, but more recent research has highlighted just how many stutterers use and engage in covert strategies. For example, in our recent work, we surveyed 502 adults who stutter to quantify their behaviors, thoughts, and feelings in and around moments of stuttering (Tichenor & Yaruss, 2019a). Almost 50% of respondents reported that they stutter covertly at least some of the time—and 10%–15% reported that they often or always

stutter covertly—by using coping strategies such as switching words or by avoiding communication altogether.

If clinicians view stuttering primarily in terms of observable fluency, then there is an elevated risk that they might fail to offer treatment (or offer different treatment) simply because they do not witness disruptions in a person’s speech in a particular situation or at a particular time. Personal stories from stutterers affirm not only that this happens but also that it can be significantly damaging for the speaker (see Ahlback & Benson, 1994; Campbell et al., 2019; Reitzes & Reitzes, 2012). Similarly, clinicians who are overly focused on fluency may over-emphasize fluency-focused therapy or seek to discharge clients who seem to be fluent but who are still experiencing adverse impact related to the condition (Tichenor & Yaruss, 2019b; Yaruss & Quesal, 2004). Again, this is widely documented and potentially damaging for the speaker (Yaruss, Quesal, & Murphy, 2002; Yaruss, Quesal, Reeves, et al., 2002). Perhaps most concerning of all, such clinicians may also encourage outwardly fluent speech at the cost of increasing more-covert forms of coping with stuttering. In promoting what might be viewed as a “clinician-sanctioned avoidance of observable stuttering behavior,” they may indirectly increase the risk that their client will experience greater adverse impact related to the condition (see Cream et al., 2003; Tichenor & Yaruss, 2019b, for discussions).

In a similar fashion, researchers who employ inclusion criteria that require or prioritize outwardly disfluent speech for participation in a study are likely to exclude a significant proportion of stutterers who either stutter covertly or just happen to be less observably disfluent during an assessment or research session. This is a situation that can arise simply due to the inherent variability of stuttering (Constantino et al., 2016; Tichenor & Yaruss, 2021; Yaruss, 1997; cf. K. N. Johnson et al., 2009). This increases the risk that the research findings may not be representative of the broader population of stutterers and that the findings may apply more to disfluent *speech* than to *people* who stutter or the broader stuttering condition. Thus, we assert that use of the term *fluency* perpetuates a culture of gate-keeping that is not inclusive of all stutterers or of the stuttering community as a whole.

Fluency Is Misleading

Use of the term *fluency* may also be misleading because it suggests a binary classification (i.e., speech can be either fluent or disfluent), even though ample research demonstrates that such a differentiation is very difficult for observers to make reliably (Cordes & Ingham, 1996, 1999; Curlee, 1981; Kully & Boberg, 1988; Martin & Haroldson, 1981). Moreover, a significant body of empirical research has shown that there are many subtle acoustic and kinematic differences in the speech of stutterers even

during times when they are supposedly speaking fluently. Examples include longer voice onset time (Healey & Ramig, 1986), reduced pitch variation (Healey, 1982), irregular articulatory movement sequencing (Max & Gracco, 2005), increased variable in-segment durations (Jancke, 1994; Wieneke & Janssen, 1987), and longer durations from the start of a speech motor movement to its peak velocity (Zimmermann, 1980a, 1980b). These findings may represent very subtle moments of stuttering (Armson & Kalinowski, 1994; Ingham, 1998), or they may represent moments of “tenuous fluency” or fluency that is “shaky, unstable, and on the verge of disintegrating” (Adams & Runyan, 1981, p. 203; see also Smith & Weber, 2017). Alternatively, these speech differences may represent attempts used by the speaker to produce speech that *appears* fluent to a listener (Jackson et al., 2016). Regardless of the explanation, perceptibly fluent speech produced by stutterers is not necessarily the same as the everyday fluent speech of nonstutterers. Thus, the term *fluency*, as applied to stutterers, may be misleading because it denies or ignores concrete, measurable differences in and characteristics of stutterers’ speech and because it falsely dichotomizes stuttered speech as the opposite of fluent speech.

Moreover, according to the definitions that are most commonly used in the stuttering literature, fluency requires not only the absence of stuttering behaviors but also the absence of *effort* to establish or maintain that fluency (Finn & Ingham, 1989; Guitar, 2013; Ingham et al., 2006; Starkweather, 1987). Constantino et al. (2020) distinguished between *effortful* fluency and *spontaneous* fluency. A speaker can achieve effortful fluency with the use of fluency enhancing techniques, by careful monitoring speech, or by hiding surface or observable stuttering behaviors through word substitutions or other means of avoidance. Other researchers have made similar distinctions between so-called *controlled* fluency versus *automatic* fluency (Perkins, 1992), with some authors calling the former *artificial* fluency (Wingate, 1969, 1981). Still, others have pointed out that the end product of behavioral stuttering therapy is not true fluency but rather *pseudofluency* (Dayalu & Kalinowski, 2002; Dayalu et al., 2002; Saltuklaroglu & Kalinowski, 2002) that imitates fluent speech but is not actually fluent speech. Even though such speech may appear to be fluent from the outsider’s perspective, it can be effortful and taxing, that is, not truly fluent, for the speaker (Constantino et al., 2017). Because real fluency is, by definition, effortless (Ingham et al., 2009; Starkweather, 1987), *effortful fluency* should not be regarded as fluency at all, regardless of how it sounds to a listener (Dayalu & Kalinowski, 2002).

Importantly, judgments about fluency are necessarily the domain of subjective experience, the truth of which is only available to the speaker (Perkins, 1990; Tichenor & Yaruss, 2018). Listeners *may* be able to judge accurately when a moment of stuttering occurs when that moment of stuttering

involves obvious, surface behaviors, such as a tense block where a person is visibly struggling. However, the very same listeners are likely to miss more subtle moments of stuttering, such as word substitutions, and they may make mistakes in effortful speech, such as prolonged speech, for fluent speech. Listeners, therefore, cannot truly judge fluency because they are not privy to the speaker’s internal sensations, such as losing control (Perkins, 1990; Tichenor & Yaruss, 2018, 2019b) or ease of speech (Constantino et al., 2017). Thus, we assert that the common use of term *fluency* can be misleading and, ultimately, inaccurate.

Fluency Is Limiting

Describing stuttering as a fluency disorder inappropriately defines stuttering primarily by what it fails to achieve: Every moment of stuttering is seen as a failure of fluency. A false dichotomy is thereby created: Speech is either stuttered or fluent. As noted above, however, fluency and stuttering are not opposite to one another. Fluency exists on a continuum from more fluent (e.g., effortless and spontaneous speech) to less fluent (e.g., speech that is difficult to produce or speech that contains overt disruptions). According to people who actually stutter, however, the moment of stuttering is a qualitatively different experience that exists outside of the continuum of fluent to *typically* disfluent speech (see Moore & Perkins, 1990; Perkins, 1990; Tichenor & Yaruss, 2018). Speech can be produced without obvious or overt moments of stuttering yet still not be experienced by the speaker as fluent. In contrast, speech can also appear fluent to a listener yet still contain (covert) stuttering. Furthermore, both stuttered and fluent speech can be more or less effortful and more or less spontaneous (Constantino et al., 2020). Thus, using the term *fluency* to describe the lack of stuttering is limiting because it constrains the subjective experience of speech to exist within this false binary categorization.

Moreover, using the word *fluency* in contrast to stuttering in this fashion carries the suggestion, whether implicitly or explicitly, that a speaker would rather have not stuttered, that the person was actually trying to speak fluently but was unable to do so, or that the person did not even bother to try to speak in a “normally fluent” way (Ingham et al., 2012, p. 267). Venkatagiri (2009) surveyed 216 adults who stutter and asked them to respond to the question, “What I wish most is to (a) speak fluently or (b) speak freely” (p. 513). More than half indicated a wish for fluency as compared to more open stuttering regardless of fluency. Ingham et al. (2012) interpreted these findings to suggest that fluency is the *de facto* preferred mode of speaking by stating, “Were they [the adults sampled in the Venkatagiri study] convinced that such a goal [fluency] was reachable, perhaps even more would aspire to achieve fluent speech” (p. 267). Such statements, which apparently

reflect common views about stuttering and fluency in the field, are an unobvious way of valuing fluent speech over stuttered speech. In part, these statements imply that stuttering cannot exist independently of what it is not. Of even more concern is the fact that this apophatic approach *thins* the lived experience of those who stutter (see Geertz, 1973; Ponterotto, 2015; M. White & Epston, 1990, for discussions of *thin* vs. *thick* descriptions of experience). Defining stuttering as a lack of fluency focuses the listener's attention on the disfluencies produced by the speaker—that is, the speaker's *failures*—instead of on the message conveyed. At the same time, the focus on fluency misses other aspects of the stuttering condition, including the broader experiences that may or may not be associated with overt speech (Tichenor & Yaruss, 2019b).

Perhaps most challenging of all, valuing fluency over stuttering emphasizes the negative experiences of stuttering at the expense of the positive. It denies the intimacy that can occur when a stutterer shares this very personal experience with a listener. It also denies even the possibility that a stutterer might experience the sometimes pleasurable feeling of the moment of stuttering itself (Alpern, 2019; Constantino, 2016, 2019). Through the use of the word *fluency*, a complex and varied human experience is reduced to nothing more than a pathology. Although such reductions may be inherent in any label or diagnosis, those who seek to understand and amplify the lives of stutterers can and should do more to preserve the full meaning, value, and experience of stuttering in all its forms. This is particularly relevant in this time when allyship related to stuttering is increasing (Constantino et al., 2017; Wislar & Gerlach, 2017). For stutterers and their allies, stuttering is not just a failure of fluency; to view it as such (and to perpetuate the use of the term *fluency* as reflecting an ideal) is to limit and minimize the lives of those who stutter.

Fluency Is Detrimental

Finally, we recognize that people make meaning from the discourses available to them in society (Foucault, 1994, 2010). Individual experiences influence social views, but individuals are also influenced by societal views as they make meaning of their own experiences. In the case of stuttering, these discourses mostly describe how stuttering *negatively* impacts the speaker and the listener (St. Pierre, 2012). Existing literature provides plenty of language for describing what is undesirable and unfortunate about stuttering; however, there is little material available for discovering the positive aspects of stuttering (see Gerlach et al., 2017; Millager et al., 2018; Tichenor & Yaruss, 2019a; Trichon & Tetnowski, 2011, as notable exceptions). This one-sided discursive landscape makes it uncommon for anyone, whether stutterer or not, to describe stuttering in positive terms (Constantino, 2019). When

positive discourses remain stunted and thin, negative discourses proliferate, and this creates an increasingly lopsided understanding of stuttering in society—and, importantly, within the profession of speech-language pathology itself. This concern is evidenced, in part, by the fact that many speech-language pathologists hold negative or inaccurate views about stuttering (see Tellis et al., 2008, for just one example of this long-standing and troubling phenomenon).

Meanwhile, many stutterers, having little material from which to create positive meanings around their speech, internalize the negative discourses that exist in the wider society (Boyle, 2013; Goffman, 1963). Put simply, society is hostile to stuttering. People who stutter incur financial costs (Blumgart et al., 2010), experience reduced labor market outcomes (Gerlach et al., 2018), are steered toward lower status jobs (Gabel et al., 2004; McAllister et al., 2012), and have been fired for stuttering (Constantino et al., 2017). They are found to be less attractive by their peers (Van Borsel et al., 2011), experience social rejection across the life span (Constantino et al., 2017; Davis et al., 2002), and are judged to be less friendly, less intelligent, more nervous, and more anxious than fluent speakers (Doody et al., 1993; Ferguson et al., 2019; Klassen, 2002; P. A. White & Collins, 1984). Of course, stutterers are not separate from society and its discourses. They internalize these messages as self-stigma and come to believe what society believes about them (Boyle, 2013, 2015, 2018; Boyle & Blood, 2015; Boyle & Fearon, 2018). This process of self-stigma leads stutterers to deduce that their reduced quality of life is *not* the result of their mistreatment at the hands of a hostile society. Rather, it must be due to their own personal failings as a speaker for not achieving the fluency that is, apparently, so highly valued.

Moreover, speakers might reasonably come to the conclusion that their problems would be solved if only they could achieve fluency (Constantino et al., 2017). As a result, they may seek out speech therapy or other therapies and try other methods such as avoidance or covert forms of stuttering in an attempt to make themselves *appear* more fluent. They may increasingly engage in behaviors designed to help them *pass* as nonstuttering speakers (Constantino et al., 2017). Unfortunately, their therapist often collaborates (intentionally or not) with these same social discourses, agreeing with their clients that, yes, their lack of fluency is the problem, so therapy focused on fluency (and a corresponding reliance on fluency-enhancing speech strategies) must be the solution. This occurs despite ample evidence that therapy generally cannot deliver permanent and spontaneous fluency (Arya & Geetha, 2013; Cooper, 1987; Craig & Hancock, 1995; Cream et al., 2003; Irani et al., 2012; M. Johnson et al., 2016; Stewart & Richardson, 2004), regardless of whether stutterers are “convinced” that it is possible (see Ingham et al., 2012, p. 267). The common usage of the term *fluency* can

thereby contribute to, perpetuate, and exacerbate the stigma that many people who stutter live with every day; we propose that many speech-language pathology clinicians and researchers—unwittingly or not—contribute to and perpetuate this stigma through their continued use of this term.

Conclusions

The word *fluency* and the concept that it describes are not inherently problematic, and our goal in this article is not to make fluency itself taboo. Rather, we seek to change the ways in which the word *fluency* is most often used by clinicians, researchers, and even the general public. We recognize, gratefully, that many of the issues we raise in this article are already understood by some expert clinicians and researchers who appreciate the nuances of the stuttering condition. Given that many speech-language pathologists remain poorly trained and educated regarding stuttering despite decades of attempts at improved clinical education (Yaruss et al., 2017), we feel that training and education are not sufficient to address the problems outlined above. It is our hope that ongoing efforts to elevate the understanding of stuttering within our field will ultimately help to address the challenges we have raised. In such a case, the use of the term *fluency* in and of itself may cause less concern. For now, however, we hope to use this discussion of the implications of talking about fluency as a way of expanding the understanding of stuttering and the lived experiences of stutterers.

Specifically, in this brief article, we have outlined theory, research, and individual perspectives to conclude that the term *fluency*, as it is typically used, is not inclusive of all people who stutter or fully representative of the stuttering experience, encourages the use of misleading measurement, constrains the subjective experience of stuttering within a false binary categorization, and perpetuates a cycle of stigma that is detrimental to many people who stutter. We believe that the field can do better, so we raise these issues to challenge our colleagues to become part of the solution for stutterers. As a first step toward addressing these significant concerns, we therefore recommend that researchers and clinicians cease referring to stuttering as a *fluency disorder* and simply refer to it as *stuttering*. Furthermore, we recommend that researchers and clinicians distinguish between *moments* of stuttering (i.e., what stutterers experience when they lose control of their speech or feel stuck) and the overall *lived experience* of stuttering (what stutterers experience in their lives as a whole; see Tichenor & Yaruss, 2019b; Yaruss & Quesal, 2004).

Certainly, the many difficulties that are commonly faced by stutterers do not stem solely or even primarily from language usage. Nonetheless, we believe that changing the way the field talks about stuttering will have

myriad concrete benefits for stutterers, the stuttering community, and society as a whole. Specifically, it will (a) highlight that a stutterer does not need to exhibit disfluencies that are overt or observable to a listener in order to qualify or identify as a person who stutters, (b) underscore the common and significant covert aspects of the experience that are not available to the listener for observation, (c) make it clearer to clinicians and people who stutter themselves that fluency need not be the goal of therapy, and (d) open up new, more positive understandings of what it means to stutter and to be a person who stutters.

References

- Adams, M. R., & Runyan, C. M. (1981). Stuttering and fluency: Exclusive events or points on a continuum? *Journal of Fluency Disorders*, 6(3), 197–218. [https://doi.org/10.1016/0094-730X\(81\)90002-4](https://doi.org/10.1016/0094-730X(81)90002-4)
- Ahlbach, J., & Benson, V. (1994). *To say what is ours: The best of 13 years of letting go* (2nd ed.). The National Stuttering Project.
- Alpern, E. (2019). Why stutter more? In C. D. Constantino & S. Simpson (Eds.), *Stammering pride and prejudice 2*. J&R Press.
- Armson, J., & Kalinowski, J. (1994). Interpreting results of the fluent speech paradigm in stuttering research. *Journal of Speech and Hearing Research*, 37(1), 69–82. <https://doi.org/10.1044/jshr.3701.69>
- Arya, P., & Geetha, Y. V. (2013). Factors related to recovery and relapse in persons with stuttering following treatment: A preliminary study. *Asia Pacific Disability Rehabilitation Journal*, 24(1), 82–98. <https://doi.org/10.5463/DCID.v24i1.189>
- Barzilai-Nahon, K. (2008). Toward a theory of network gatekeeping: A framework for exploring information control. *Journal of the American Society for Information Science and Technology*, 59(9), 1493–1512. <https://doi.org/10.1002/asi.20857>
- Blumgart, E., Tran, Y., & Craig, A. (2010). An investigation into the personal financial costs associated with stuttering. *Journal of Fluency Disorders*, 35(3), 203–215. <https://doi.org/10.1016/j.jfludis.2010.03.002>
- Boyle, M. P. (2013). Assessment of stigma associated with stuttering: Development and evaluation of the self-stigma of stuttering scale (4S). *Journal of Speech, Language, and Hearing Research*, 56(5), 1517–1529. [https://doi.org/10.1044/1092-4388\(2013\)12-0280](https://doi.org/10.1044/1092-4388(2013)12-0280)
- Boyle, M. P. (2015). Identifying correlates of self-stigma in adults who stutter: Further establishing the construct validity of the self-stigma of stuttering scale (4S). *Journal of Fluency Disorders*, 43, 17–27. <https://doi.org/10.1016/j.jfludis.2014.12.002>
- Boyle, M. P. (2018). Enacted stigma and felt stigma experienced by adults who stutter. *Journal of Communication Disorders*, 73, 50–61. <https://doi.org/10.1016/j.jcomdis.2018.03.004>
- Boyle, M. P., & Blood, G. W. (2015). Stigma and stuttering: Conceptualizations, applications, and coping. In K. O. St. Louis (Ed.), *Stuttering meets stereotype, stigma, and discrimination* (pp. 43–70). West Virginia University Press.
- Boyle, M. P., & Fearon, A. N. (2018). Self-stigma and its associations with stress, physical health, and health care satisfaction in adults who stutter. *Journal of Fluency Disorders*, 56, 112–121. <https://doi.org/10.1016/j.jfludis.2017.10.002>
- Campbell, P., Constantino, C. D., & Simpson, S. (2019). *Stammering pride and prejudice*. J&R Press.

- Constantino, C. D.** (2016). *Stuttering gain*. International Stuttering Association, International Stuttering Awareness Day Online Conference 2016. <http://isad.isastutter.org/isad-2016/papers-presented-by-2016/stories-and-experiences-with-stuttering-by-pws/stuttering-gain-christopher-constantino/>
- Constantino, C. D.** (2018). What can stutterers learn from the neurodiversity movement? *Seminars in Speech and Language, 39*(4), 382–396. <https://doi.org/10.1055/s-0038-1667166>
- Constantino, C. D.** (2019). Stutter naked. In P. Campbell, C. D. Constantino, & S. Simpson (Eds.), *Stammering pride and prejudice* (pp. 213–223). J&R Press.
- Constantino, C. D., Eichorn, N., Buder, E. H., Beck, J. G., & Manning, W. H.** (2020). The speaker's experience of stuttering: Measuring spontaneity. *Journal of Speech, Language, and Hearing Research, 63*(4), 983–1001. https://doi.org/10.1044/2019_JSLHR-19-00068
- Constantino, C. D., Leslie, P., Quesal, R., & Yaruss, J. S.** (2016). A preliminary investigation of daily variability of stuttering in adults. *Journal of Communication Disorders, 60*, 39–50. <https://doi.org/10.1016/j.jcomdis.2016.02.001>
- Constantino, C. D., Manning, W. H., & Nordstrom, S. N.** (2017). Rethinking covert stuttering. *Journal of Fluency Disorders, 53*, 26–40. <https://doi.org/10.1016/j.jfludis.2017.06.00>
- Cooper, E. B.** (1987). The chronic perseverative stuttering syndrome: Incurable stuttering. *Journal of Fluency Disorders, 12*(6), 381–388. [https://doi.org/10.1016/0094-730X\(87\)90008-8](https://doi.org/10.1016/0094-730X(87)90008-8)
- Cordes, A. K., & Ingham, R. J.** (1996). Time-interval measurement of stuttering: Establishing and modifying judgment accuracy. *Journal of Speech and Hearing Research, 39*(2), 298–310. <https://doi.org/10.1044/jshr.3902.298>
- Cordes, A. K., & Ingham, R. J.** (1999). Effects of time-interval judgment training on real-time measurement of stuttering. *Journal of Speech, Language, and Hearing Research, 42*(4), 862–879. <https://doi.org/10.1044/jslhr.4204.862>
- Craig, A., & Hancock, K.** (1995). Self-reported factors related to relapse following treatment for stuttering. *Australian Journal of Human Communication Disorders, 23*(1), 48–60. <https://doi.org/10.3109/asl2.1995.23.issue-1.04>
- Cream, A., Onslow, M., Packman, A., & Llewellyn, G.** (2003). Protection from harm: The experience of adults after therapy with prolonged-speech. *International Journal of Language & Communication Disorders, 38*(4), 379–395. <https://doi.org/10.1080/13682820310001598166>
- Curlee, R. F.** (1981). Observer agreement on disfluency and stuttering. *Journal of Speech and Hearing Research, 24*(4), 595–600. <https://doi.org/10.1044/jshr.2404.595>
- Davis, S., Howell, P., & Cooke, F.** (2002). Sociodynamic relationships between children who stutter and their non-stuttering classmates. *Journal of Child Psychology and Psychiatry and Allied Disciplines, 43*(7), 939–947. <https://doi.org/10.1111/1469-7610.00093>
- Dayalu, V. N., & Kalinowski, J.** (2002). Pseudofluency in adults who stutter: The illusory outcome of therapy. *Perceptual and Motor Skills, 94*(1), 87–96. <https://doi.org/10.2466/pms.2002.94.1.87>
- Dayalu, V. N., Kalinowski, J., & Saltuklaroglu, T.** (2002). Active inhibition of stuttering results in pseudofluency: A reply to Craig. *Perceptual and Motor Skills, 94*, 1050–1052. <https://doi.org/10.2466/pms.2002.94.3.1050>
- Doody, I., Kalinowski, J., Armson, J., & Stuart, A.** (1993). Stereotypes of stutterers and nonstutterers in three rural communities in Newfoundland. *Journal of Fluency Disorders, 18*(4), 363–373. [https://doi.org/10.1016/0094-730X\(93\)90015-V](https://doi.org/10.1016/0094-730X(93)90015-V)
- Douglass, J. E., Constantino, C. D., Alvarado, J., Verrastro, K., & Smith, K.** (2019). Qualitative investigation of the speech-language therapy experiences of individuals who covertly stutter. *Journal of Fluency Disorders, 61*, 105713. <https://doi.org/10.1016/j.jfludis.2019.105713>
- Ferguson, A. M., Roche, J. M., & Arnold, H. S.** (2019). Social judgments of digitally manipulated stuttered speech: An evaluation of self-disclosure on cognition. *Journal of Speech, Language, and Hearing Research, 62*(11), 3986–4000. https://doi.org/10.1044/2019_JSLHR-S-19-0088
- Finn, P., & Ingham, R. J.** (1989). The selection of “fluent” samples in research on stuttering. *Journal of Speech and Hearing Research, 32*(2), 401–418. <https://doi.org/10.1044/jshr.3202.401>
- Foucault, M.** (1994). *The order of things: An Archaeology of the human sciences*. Random House.
- Foucault, M.** (2010). *The archaeology of knowledge* (A. M. S. Smith [Ed.]). Vintage Books.
- Gabel, R. M., Blood, G. W., Tellis, G. M., & Althouse, M. T.** (2004). Measuring role entrapment of people who stutter. *Journal of Fluency Disorders, 29*(1), 27–49. <https://doi.org/10.1016/j.jfludis.2003.09.002>
- Geertz, C.** (1973). *The interpretation of cultures*. Basic Books.
- Gerlach, H., Hollister, J. E., Caggiano, L., & Zebrowski, P. M.** (2017). *Outcomes of attending a support organization convention for young people who stutter*. The University of Iowa.
- Gerlach, H., Totty, E., Subramanian, A., & Zebrowski, P.** (2018). Stuttering and labor market outcomes in the United States. *Journal of Speech, Language, and Hearing Research, 61*(7), 1649–1663. https://doi.org/10.1044/2018_JSLHR-S-17-0353
- Goffman, E.** (1963). *Stigma: Notes on the management of spoiled identity*. Simon and Schuster.
- Guitar, B.** (2013). *Stuttering: An integrated approach to its nature and treatment* (4th ed.). Wolters Kluwer Health/Lippincott Williams & Wilkins.
- Healey, E. C.** (1982). Speaking fundamental frequency characteristics of stutterers and nonstutterers. *Journal of Communication Disorders, 15*(1), 21–29. [https://doi.org/10.1016/0021-9924\(82\)90041-7](https://doi.org/10.1016/0021-9924(82)90041-7)
- Healey, E. C., & Ramig, P. R.** (1986). Acoustic measures of stutterers' and nonstutterers' fluency in two speech contexts. *Journal of Speech and Hearing Research, 29*(3), 325–331. <https://doi.org/10.1044/jshr.2903.325>
- Ingham, R. J.** (1998). On learning from speech-motor control research on stuttering. In A. K. Cordes & R. J. Ingham (Eds.), *Treatment efficacy for stuttering: A search for empirical bases* (pp. 67–101). Singular.
- Ingham, R. J., Bothe, A. K., Jang, E., Yates, L., Cotton, J., & Seybold, I.** (2009). Measurement of speech effort during fluency-inducing conditions in adults who do and do not stutter. *Journal of Speech, Language, and Hearing Research, 52*(5), 1286–1301. [https://doi.org/10.1044/1092-4388\(2009\)08-0181](https://doi.org/10.1044/1092-4388(2009)08-0181)
- Ingham, R. J., Ingham, J. C., & Bothe, A. K.** (2012). Integrating functional measures with treatment: A tactic for enhancing personally significant change in the treatment of adults and adolescents who stutter. *American Journal of Speech-Language Pathology, 21*(3), 264–277. [https://doi.org/10.1044/1058-0360\(2012\)11-0068](https://doi.org/10.1044/1058-0360(2012)11-0068)
- Ingham, R. J., Warner, A., Byrd, A., & Cotton, J.** (2006). Speech effort measurement and stuttering: Investigating the chorus reading effect. *Journal of Speech, Language, and Hearing Research, 49*(3), 660–670. [https://doi.org/10.1044/1092-4388\(2006\)048](https://doi.org/10.1044/1092-4388(2006)048)
- Irani, F., Gabel, R., Daniels, D., & Hughes, S.** (2012). The long term effectiveness of intensive stuttering therapy: A mixed methods study. *Journal of Fluency Disorders, 37*(3), 164–178. <https://doi.org/10.1016/j.jfludis.2012.04.002>
- Jackson, E. S., Quesal, R., & Yaruss, J. S.** (2012). *What is stuttering: Revisited* [Paper presentation]. International Stuttering Awareness Day Online Conference, 2012.

- Jackson, E. S., Rodgers, N. H., & Rodgers, D. B.** (2019). An exploratory factor analysis of action responses to stuttering anticipation. *Journal of Fluency Disorders, 60*, 1–10. <https://doi.org/10.1016/j.jfludis.2019.03.001>
- Jackson, E. S., Tiede, M., Beal, D., & Whalen, D. H.** (2016). The impact of social-cognitive stress on speech variability, determinism, and stability in adults who do and do not stutter. *Journal of Speech, Language, and Hearing Research, 59*(6), 1295–1314. https://doi.org/10.1044/2016_JSLHR-S-16-0145
- Jackson, E. S., Yaruss, J. S., Quesal, R., Terranova, V., & Whalen, D. H.** (2015). Responses of adults who stutter to the anticipation of stuttering. *Journal of Fluency Disorders, 45*, 38–51. <https://doi.org/10.1016/j.jfludis.2015.05.002>
- Jancke, L.** (1994). Variability and duration of voice onset time and phonation in stuttering and nonstuttering adults. *Journal of Fluency Disorders, 19*(1), 21–37. [https://doi.org/10.1016/0094-730X\(94\)90012-4](https://doi.org/10.1016/0094-730X(94)90012-4)
- Johnson, K. N., Karrass, J., Conture, E. G., & Walden, T.** (2009). Influence of stuttering variation on talker group classification in preschool children: Preliminary findings. *Journal of Communication Disorders, 42*(3), 195–210. <https://doi.org/10.1016/j.jcomdis.2008.12.001>
- Johnson, M., Baxter, S., Blank, L., Cantrell, A., Brumfitt, S., Enderby, P., & Goyder, E.** (2016). The state of the art in non-pharmacological interventions for developmental stuttering. Part 2: Qualitative evidence synthesis of views and experiences. *International Journal of Language & Communication Disorders, 51*(1), 3–17. <https://doi.org/10.1111/1460-6984.12182>
- Johnson, W.** (1959). *The onset of stuttering: Research findings and implications*. University of Minnesota Press.
- Klassen, T.** (2002). Social distance and the negative stereotype of people who stutter. *Journal of Speech-Language Pathology and Audiology, 26*(2), 90–99. http://www.arts.yorku.ca/politics/tklassen/cv/Publications/Refereed_articles/Social_Distance_and_the_Negative_Stereotype_-_2002.pdf
- Kully, D., & Boberg, E.** (1988). An investigation of interclinic agreement in the identification of fluent and stuttered syllables. *Journal of Fluency Disorders, 13*, 309–318. [https://doi.org/10.1016/0094-730X\(88\)90001-0](https://doi.org/10.1016/0094-730X(88)90001-0)
- MacIntyre, S.** (2012). Passing as fluent. In P. Reitzes & D. Reitzes (Eds.), *Stuttering* (Vol. 1, pp. 25–38). StutterTalk.
- Martin, R., & Haroldson, S. K.** (1981). Stuttering identification. *Journal of Speech and Hearing Research, 24*(1), 59–63. <https://doi.org/10.1044/jshr.2401.59>
- Max, L., & Gracco, V. L.** (2005). Coordination of oral and laryngeal movements in the perceptually fluent speech of adults who stutter. *Journal of Speech, Language, and Hearing Research, 48*(3), 524–542. [https://doi.org/10.1044/1092-4388\(2005\)036](https://doi.org/10.1044/1092-4388(2005)036)
- McAllister, J., Collier, J., & Shepstone, L.** (2012). The impact of adolescent stuttering on educational and employment outcomes: Evidence from a birth cohort study. *Journal of Fluency Disorders, 37*(2), 106–121. <https://doi.org/10.1016/j.jfludis.2012.01.002>
- Millager, R. A., Gerlach, H., & Sepulveda, R.** (2018). *Impact of a group support program on the communication attitudes of children who stutter*. The Stuttering Association for the Young.
- Moore, S. E., & Perkins, W. H.** (1990). Validity and reliability of judgments of authentic and simulated stuttering. *Journal of Speech and Hearing Disorders, 55*(3), 383–391. <https://doi.org/10.1044/jshd.5503.383>
- Perkins, W. H.** (1983). The problem of definition: Commentary on “stuttering.” *Journal of Speech and Hearing Disorders, 48*(3), 246–249. <https://doi.org/10.1044/jshd.4803.246b>
- Perkins, W. H.** (1984). Stuttering as a categorical event. *Journal of Speech and Hearing Disorders, 49*(4), 431–434. <https://doi.org/10.1044/jshd.4904.431>
- Perkins, W. H.** (1990). What is stuttering? *Journal of Speech and Hearing Disorders, 55*(3), 370–382. <https://doi.org/10.1044/jshd.5503.370>
- Perkins, W. H.** (1992). Fluency controls and automatic fluency. *American Journal of Speech-Language Pathology, 1*(2), 9–10. <https://doi.org/10.1044/1058-0360.0102.09>
- Ponterotto, J.** (2015). Brief note on the origins, evolution, and meaning of the qualitative research concept thick description. *The Qualitative Report, 11*(3), 538–549. <https://doi.org/10.46743/2160-3715/2006.1666>
- Quesal, R.** (1989). Stuttering research: Have we forgotten the stutterer? *Journal of Fluency Disorders, 14*(3), 153–164. [https://doi.org/10.1016/0094-730X\(89\)90033-8](https://doi.org/10.1016/0094-730X(89)90033-8)
- Reitzes, P., & Reitzes, D.** (2012). *Stuttering: Inspiring stories and professional wisdom*. StutterTalk.
- Saltuklaroglu, T., & Kalinowski, J.** (2002). The end-product of behavioural stuttering therapy: Three decades of denaturing the disorder. *Disability and Rehabilitation, 24*(15), 786–789. <https://doi.org/10.1080/09638280110111333>
- Smith, A., & Weber, C.** (2017). How stuttering develops: The multifactorial dynamic pathways theory. *Journal of Speech, Language, and Hearing Research, 60*(9), 2483–2505. https://doi.org/10.1044/2017_JSLHR-S-16-0343
- Starkweather, C. W.** (1987). *Fluency and stuttering*. Prentice-Hall.
- Stewart, T., & Richardson, G.** (2004). A qualitative study of therapeutic effect from a user's perspective. *Journal of Fluency Disorders, 29*(2), 95–108. <https://doi.org/10.1016/j.jfludis.2003.11.001>
- St. Pierre, J. S.** (2012). The construction of the disabled speaker: Locating stuttering in disability studies. *Canadian Journal of Disability Studies, 1*(3), 9–23. <https://doi.org/10.15353/cjds.v1i3.54>
- Tellis, G. M., Bressler, L., & Emerick, K.** (2008). An exploration of clinicians views about assessment and treatment of stuttering. *SIG 4 Perspectives on Fluency and Fluency Disorders, 18*(1), 16–23. <https://doi.org/10.1044/ffd18.1.16>
- Tichenor, S. E., & Yaruss, J. S.** (2018). A phenomenological analysis of the experience of stuttering. *American Journal of Speech-Language Pathology, 27*(3S), 1180–1194. https://doi.org/10.1044/2018_AJSLP-ODC11-17-0192
- Tichenor, S. E., & Yaruss, J. S.** (2019a). Group experiences and individual differences in stuttering. *Journal of Speech, Language, and Hearing Research, 62*(12), 4335–4350. https://doi.org/10.1044/2019_JSLHR-19-00138
- Tichenor, S. E., & Yaruss, J. S.** (2019b). Stuttering as defined by adults who stutter. *Journal of Speech, Language, and Hearing Research, 62*(12), 4356–4369. https://doi.org/10.1044/2019_JSLHR-19-00137
- Tichenor, S. E., & Yaruss, J. S.** (2020). Recovery and relapse: Perspectives from adults who stutter. *Journal of Speech, Language, and Hearing Research, 63*(7), 2162–2176. https://doi.org/10.1044/2020_JSLHR-20-00010
- Tichenor, S. E., & Yaruss, J. S.** (2021). Variability of stuttering: Behavior and impact. *American Journal of Speech-Language Pathology, 30*(1), 75–88. https://doi.org/10.1044/2020_AJSLP-20-00112
- Trichon, M., & Tetnowski, J.** (2011). Self-help conferences for people who stutter: A qualitative investigation. *Journal of Fluency Disorders, 36*(4), 290–295. <https://doi.org/10.1016/j.jfludis.2011.06.001>
- Van Borsel, J., Brepoels, M., & De Coene, J.** (2011). Stuttering, attractiveness and romantic relationships: The perception of

- adolescents and young adults. *Journal of Fluency Disorders*, 36(1), 41–50. <https://doi.org/10.1016/j.jfludis.2011.01.002>
- Van Riper, C.** (1982). *The nature of stuttering*. Prentice Hall.
- Vanryckeghem, M., Brutten, G. J., Uddin, N., & Van Borsel, J.** (2004). A comparative investigation of the speech-associated coping responses reported by adults who do and do not stutter. *Journal of Fluency Disorders*, 29(3), 237–250. <https://doi.org/10.1016/j.jfludis.2004.07.001>
- Venkatagiri, H. S.** (2009). What do people who stutter want—Fluency or freedom? *Journal of Speech, Language, and Hearing Research*, 52(2), 500–515. [https://doi.org/10.1044/1092-4388\(2008/07-0019\)](https://doi.org/10.1044/1092-4388(2008/07-0019))
- White, M., & Epston, D.** (1990). *Narrative means to therapeutic ends* (1st ed.). Norton.
- White, P. A., & Collins, S. R.** (1984). Stereotype formation by inference. *Journal of Speech and Hearing Research*, 27(4), 567–570. <https://doi.org/10.1044/jshr.2704.567>
- Wieneke, G., & Janssen, P.** (1987). Duration variations in the fluent speech of stutters and nonstutters. In *Speech motor dynamics in stuttering* (pp. 345–352). Springer.
- Williams, D. E.** (1957). A point of view about stuttering. *Journal of Speech and Hearing Disorders*, 22(3), 390–397. <https://doi.org/10.1044/jshd.2203.390>
- Wingate, M. E.** (1964). *Recovery from stuttering*. Taylor & Francis. <https://doi.org/10.4324/9780203847404>
- Wingate, M. E.** (1969). Sound and pattern in “artificial” fluency. *Journal of Speech and Hearing Research*, 12(4), 677–686. <https://doi.org/10.1044/jshr.1204.677>
- Wingate, M. E.** (1981). Knowing what to look for. *Journal of Speech and Hearing Research*, 24(4), 622–623. <https://doi.org/10.1044/jshr.2404.622>
- Wingate, M. E.** (1988). *The structure of stuttering*. R.R. Donnelley and Sons. <https://doi.org/10.1007/978-1-4615-9664-6>
- Wislar, E., & Gerlach, H.** (2017). *How to be a fluent ally to people who stutter (an illustrated guide)*. International Stuttering Association, International Stuttering Awareness Day Online Conference.
- Yairi, E.** (1982). Longitudinal studies of disfluencies in two-year-old children. *Journal of Speech and Hearing Research*, 25(1), 155–160. <https://doi.org/10.1044/jshr.2501.155>
- Yairi, E., & Ambrose, N.** (2005). *Early childhood stuttering for clinicians by clinicians*. Pro-Ed.
- Yaruss, J. S.** (1997). Clinical implications of situational variability in preschool children who stutter. *Journal of Fluency Disorders*, 22(3), 187–203. [https://doi.org/10.1016/S0094-730X\(97\)00009-0](https://doi.org/10.1016/S0094-730X(97)00009-0)
- Yaruss, J. S., Lee, J., Kikani, K. B., Leslie, P., Herring, C., Ramachandar, S., Tichenor, S., Quesal, R. W., & McNeil, M. R.** (2017). Update on didactic and clinical education in fluency disorders: 2013–2014. *American Journal of Speech-Language Pathology*, 26(1), 124–137. https://doi.org/10.1044/2016_AJSLP-15-0154
- Yaruss, J. S., & Quesal, R.** (2004). Stuttering and the international classification of functioning, disability, and health (ICF): An update. *Journal of Communication Disorders*, 37(1), 35–52. [https://doi.org/10.1016/S0021-9924\(03\)00052-2](https://doi.org/10.1016/S0021-9924(03)00052-2)
- Yaruss, J. S., Quesal, R., & Murphy, B.** (2002). National stuttering association members’ opinions about stuttering treatment. *Journal of Fluency Disorders*, 27(3), 227–242. [https://doi.org/10.1016/S0094-730X\(02\)00142-0](https://doi.org/10.1016/S0094-730X(02)00142-0)
- Yaruss, J. S., Quesal, R., Reeves, L., Molt, L. F., Kluetz, B., Caruso, A. J., McClure, J. A., & Lewis, F.** (2002). Speech treatment and support group experiences of people who participate in the national stuttering association. *Journal of Fluency Disorders*, 27(2), 115–134. [https://doi.org/10.1016/S0094-730X\(02\)00114-6](https://doi.org/10.1016/S0094-730X(02)00114-6)
- Zimmermann, G.** (1980a). Articulatory behaviors associated with stuttering. *Journal of Speech and Hearing Research*, 23(1), 108–121. <https://doi.org/10.1044/jshr.2301.108>
- Zimmermann, G.** (1980b). Articulatory dynamics of fluent utterances of stutters and nonstutters. *Journal of Speech and Hearing Research*, 23(1), 95–107. <https://doi.org/10.1044/jshr.2301.95>