Debunking the "language gap"

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Abstract

Purpose – This paper aims to outline the misguided underpinnings of the "word gap" concept promoted by Hart and Risley (1995). This concept posits that a "30 million word gap" between children of poverty and those from affluent households accounts for widespread academic disparities. Based on this premise, there has been a recent surge in educational programs that are based on a deficit view toward the language patterns of families from economically impoverished backgrounds.

Design/methodology/approach – This paper is a discussion piece to debunk the "word gap" concept.

Findings – Describing the language patterns of families in poverty as inferior is linguistically false and culturally insensitive. The aim of this paper is to explain why this is and suggest alternative approaches for supporting students who live in poverty.

Originality/value – This paper is an original look at the so-called "language gap" and suggests strategies for helping students who might otherwise struggle to reach their potential.

Keywords Language gap, Language socialization, Linguistic anthropology

Paper type Viewpoint

Inventing gaps

In 1995, Betty Hart and Todd Risley published *Meaningful Differences in the Everyday Experience of Young American Children* – a widely disseminated book presenting the authors' views on the relationship between children's home language-use and their subsequent academic achievement. Hart and Risley claimed that by three years of age, children from more affluent households were exposed to approximately 30 million more words than children from lower socioeconomic status (SES) backgrounds. Known as the "word gap" (a.k.a. the "language gap"), this finding has been used by many researchers and educators to explain the low academic achievement patterns in students from economically impoverished backgrounds. The implications of this study have been far reaching in the development of education policies that directly shape the educational opportunities of language minority students and have recently surfaced with renewed attention in the media (Bellafante, 2012; Ludden, 2014; NPR Staff, 2013; Rich, 2014; Rosenberg, 2013; Talbot, 2015; Unmuth, 2014), research literature (Evans, 2004; Fernald *et al.*, 2013; Hoff, 2006; Loope, 2011) and political arena (Office of Mayor Angel Taveras, 2014; Guernsey, 2013).

Aligned with previous arguments on this topic (Blum, 2014; Blum and Riley, 2014; Dudley-Marling and Lucas, 2009; Miller and Sperry, 2012), I reject the "word gap" concept based on its lack of scientific merit as well as its negative educational and social implications. Of particular concern here is how Hart and Risley understand "language" or "linguistic richness". Studies that relate so-called verbal deprivation to cognitive deprivation by counting words and other language items are based on the researchers' ethnocentric and subjective definitions of linguistic complexity. The findings in these studies are premised on a series of claims that are not borne out by scientific research. Counter to Hart and Risley's claims (as well as those put forth in other word gap studies), there is *no* linguistic research-based evidence that:

- a "linguistically stimulating environment" can be measured by the number of words used in that environment;
- children will not develop "full linguistic competence" if they are not exposed within the first three years of life to a linguistically stimulating environment defined by these measures;
- a "linguistic deficit" presumed to be caused by a lack of exposure to a certain quantity of words will have an adverse effect on a child's cognitive development;
- "school success" is dependent on the supposedly superior linguistic and cognitive capacities that result from early exposure to vocabulary-rich environments; and
- children from economically affluent backgrounds do better at school primarily because of their linguistic and cognitive competence resulting from the amount of words they heard before the age of three.

In addition to the theoretical weakness of Hart and Risley's study, their methodological approach is equally problematic. Although they undoubtedly spent a great deal of time calculating the number of words used by the children in their study, they lack a sound qualitative understanding of the contextual factors involved in language-use as well as the effects of their presence on the speech patterns of the participants during their data collection.

The study
As part of their study, Hart and Risley recorded the language interactions of 42 families from various SES backgrounds. They conducted their observations and recordings for 1 hour on a monthly basis for approximately three years. Of the 42 participating families in the study, Hart and Risely included (in their words) 13 *higher-SES children*, 23 *middle-/lower-SES children* and 6 *welfare children*. Although they often refer to the "middle-/lower-SES families" as one group in the study, they do differentiate between "10 middle-SES families" and "13 lower-SES families" (Hart and Risley, 1995, p. 62). Demographically, the study included families from White and African American backgrounds. Hart and Risely go to great lengths to level any racial differences in discourse style by emphasizing the representation of African American families in all of their SES categories – though, they do not acknowledge the well-established linguistic variation found in African American dialects (Labov, 1972). That said, whereas there was only one African American family from the higher-SES group, there were ten represented in the "middle-/lower-SES group" and all six families from the "welfare" group. Although they attempted to ensure that African Americans were represented in

all groups, they did not indicate how many of the ten African American families in the combined "middle-/lower-SES" group were represented in actual "lower-SES" group. It is also important to note that they did not include any White/Anglo families in their "welfare" group.

As a result of this study, Hart and Risley claim that children from lower SES backgrounds not only lack in their overall exposure to words by the age of three, they are impacted by the quality of language interactions to which they are exposed. They support this by breaking down the "richness" (p. 120) of parent utterances into categories, spanning features like number of nouns and modifiers, the usage of verb tenses and strategies for asking and answering questions (pp. 96-134). Armed with three years of data, they then conducted IQ tests with the children to substantiate their findings. Even though Stephen Jay Gould's (1981) detailed denunciation of the IQ test as a racially divisive cultural construct had been published over a decade earlier, Hart and Risley maintained that they "consider an IQ score at age three to provide a valid estimate of the amount a child has learned in 36 months of life rather than an estimate of the child's capacities" (p. 143). Ultimately, these findings were used to implicate differing discourse styles in varying levels of intellectual "accomplishment" (p. 142). Hart and Risley claim that vocabulary growth "was strongly associated with vocabulary use (cognitive functioning in interaction with daily experience)" (p. 144). Based on these claims, the educational community was led to believe that SES determines a child's capacity for cognitive functioning and her/his level of intellectual accomplishment.

Hart and Risley extend their deficit orientation to a description of the "intergenerational transmission of family culture", pointing out that they could see the American Dream being transmitted between generations in the affluent, "professional families". Hart and Risley explain that they:

> […] saw the daily efforts of these parents to transmit an educationally advantaged culture to their children through the display of enriched language; through the amount of talking they did and how informative they were; and through the frequency of gentle guidance, affirmative interactions, and responsiveness to their children's talk (p. 179).

They continue by describing that children in "welfare families" were condemned by the "poverty of experience being transmitted across generations" (p. 180). This stance perpetuates the deficit orientation and self-fulfilling prophecy perspectives that abound in education today.

In the current era of the standards-based education where intensive high-stakes testing is assumed to be a tool to help teachers close the achievement gap between White students and students from minority backgrounds, the "word gap" concept is easily applied to make sense of the staggering levels of academic challenges facing students from lower SES backgrounds. Unfortunately, not only does this usually materialize in the form of remedial curricula, over-representation in special education services and increased dropout rates, this deficit orientation toward home language use simultaneously casts parents as not possessing sufficient language skills while justifying the self-fulfilling prophecy of underachievement espoused by a contrived "culture of poverty" (Payne, 2013). This discussion eschews the word/language gap perspective by aligning with views of language use grounded in theories of language socialization (for an expanded denunciation of the Hart and Risley study, see Dudley-Marling and Lucas, 2009).

Communicative competence

Instead of comparing and ranking students from economically diverse backgrounds in terms of the same linguistic criteria, researchers in the field of language socialization emphasize viewing "appropriate" language use as situated within contextualized cultural norms of interaction that are negotiated by the actors within a given social context. Linguistic features like turn-taking, register, body language, questioning strategies and vocabulary vary between groups from different cultural backgrounds. Linguistic anthropologist Hymes' (1972) concept of "communicative competence" can be used to explain how social expectations of appropriate interaction are negotiated by members within a given speech community. These social expectations shape the way an individual uses language to participate as a member of that specific community.

This work has been applied to children's language development by a variety of researchers. Work by Ochs (1982) in Samoa and Schieffelin (1990) in Papua New Guinea illustrates the diverse nature of how children acquire syntactic and semantic structures, as well as their discursive and conversational abilities. Additionally, Basso's (1996) work with the Western Apache points out the importance of silence within conversations, highlighting the use of place-based metaphors as vehicles for communicating vast information. The main premise here is that children acquire language as a means to become a member of a particular group. Thus, the features of their language reflect the culturally appropriate norms of interaction demonstrated by other members of their community.

Just as language features vary between different communities, so do the way these features emerge developmentally. For example, different communities use different questioning strategies – i.e. children will acquire the questioning strategies necessary to fulfill the social expectations of their particular community. Absent from Hart and Risley's conclusions about the language development of the lower-SES groups is an acknowledgment of the dialectal variation of African Americans. The sociolinguistic work of William Labov in the 1970s disproved a deluge of assumptions toward the inferiority of African American language patterns, spanning syntax, semantics, phonology and pragmatics. When contrasted with Hart and Risley's concept of the "word gap", a language socialization stance demonstrates that as children from different backgrounds acquire the vocabulary of their community, it is not fair to assess the amount of words children use without taking into consideration the way the children use the words within their particular cultural contexts. Moreover, what actually counts as a "word" in vocabulary studies is often based on White, middle-class language patterns. This point is especially poignant when discussing the implications of the "word gap" to academic achievement.

Language and school

While the "word gap" is used to explain, in part, why children from low SES backgrounds continue to struggle in school, a language socialization perspective allows us to view this situation differently. Heath's (1983) work on discourse and literacy practices of families from different SES groups illustrated how home language practices manifest in school settings. Heath's ethnographic descriptions highlight complex and varied nature of home language practices across all SES and ethnic groups. Heath found that the discursive and literacy practices found in the more affluent homes reflected the

types of language expectations valued in schools. In classroom settings where practices are based on middle- and upper-SES group language norms, Heath described how students from less affluent backgrounds struggled with pre-established literacy expectations in schools.

Heath's work has since propelled an abundance of scholarly literature validating the complex nature of language and literacy practices in minority communities (Au, 2008; McCarty, 2005a; Pérez, 2004; Zentella, 2005). In spite of the breadth of this line of research, stark disparities in academic achievement based on language and literacy patterns persist in schools with high minority populations, especially those in low socioeconomic contexts (McCarty, 2005b; Moll and Ruiz, 2002; Tollefson and Tsui, 2004). Looking at this issue though a language socialization lens explains that students from low economic backgrounds do not struggle at school because they are linguistically or cognitively inferior to other groups; rather, they enter school operating from different cultural and linguistic schemas.

Hart and Risley's attempt to implicate vocabulary and language exposure in academic challenges glosses over the fact that schools do an inadequate job of recognizing student strengths across diverse linguistic repertoires – ultimately resulting in missed opportunities to help students scaffold their strengths to master the prescriptive skills expected in academic contexts. Counter to the perpetuated view of students from low economic backgrounds as inherently academically disadvantaged, Faltis (2005) draws on the "socialization mismatch hypothesis" as a way to predict that children are more likely to succeed in school when their home language and literacy patterns are similar to those used (and valued) in school settings. This point has become increasingly evident in the persistent use in the current era of standardized curriculum and high-stakes testing.

The challenges with academic achievement in high-poverty schools are widely recognized. Unfortunately, the good intentions of district administrators are often swayed by researchers whose work stems from Hart and Risely's deficit orientation. For example, self-promoted expert on "brain-based teaching", Eric Jensen (www.ericjensen. com/), has built an industry out of conducting professional development workshops for school districts with high poverty rates. Although many of the teaching techniques he encourages follow sound pedagogical theories (e.g. cooperative learning, peer assistance, building relationships, providing nutritious meals), much of his work is grounded in the remediation of *cognitive impairments* resulting from language patterns between parents and their children. Jensen (2015, p. 3) underscores high-poverty students' inferior language abilities by claiming "there is considerable evidence that children from poverty are more likely to have impaired exposure to critical enrichment factors resulting in substandard cognitive skills" – an assertion Jensen supports by citing Hart and Risley's study.

Although school districts should be lauded for providing professional development workshops aimed at mitigating the effects of economic poverty, it is necessary that educators are not misled to believe that their students come from linguistically impoverished households. As I have expanded on previously (Johnson, 2014), a more effective means of ameliorating the negative academic consequences faced by minority students entails espousing a "funds of knowledge" (Gonzalez et al., 2005) approach to understanding students' social interactions and cultural patterns. This position highlights the nuances involved in the way literacy skills circulate within and across the

different contexts traversed by students and families on a daily basis. As Fránquiz *et al.* (2011, p. 109) propose:

> […] hidden funds of family knowledge and "nonacademic" literacies be used as resources for learning in schools from preschool to university, in libraries, in churches, in community-based organizations and in other educational settings.

This perspective allows educators to see through the façade of the "word gap" and appreciate the linguistic sophistication of their students' socioculturally determined patterns of language interactions. That said, a critical component of a funds of knowledge approach not only demands that educators identify specific skills that are grounded in their students' cultural background knowledge, but that teachers must integrate these skills into classroom practices to scaffold academic language and literacy patterns (Johnson, 2014).

Conclusions

The popular "scientific" assumptions and policies resulting from research based on word counts are untrue, unjust and counterproductive. First, they contribute to a blame-the-victim discourse that undermines any attempt to empower the disenfranchised (i.e. parents from less affluent homes are made to feel incompetent and irresponsible because they do not pump their children full of words from the womb on) while many of the structural constraints that instantiate educational, political and economic inequities remain unaddressed. In addition, all the positive socializing practices supportive of linguistic and cognitive development that take place in non-affluent homes are ignored, and any non-normative but constructive forms of thinking and communicating that exist in non-affluent communities are devalued. Moreover, pedagogical strategies designed to engage alternative forms of talking and learning to scaffold the acquisition of school-based skills are not being encouraged in classrooms.

I recognize that children who live in poverty are more likely to face challenges securing certain resources that are afforded to more affluent children (e.g. access to healthcare, tutoring, adequate nutrition). That said, I am staunchly opposed to academic, political and social platforms that perpetuate educators' views that children from lower economic backgrounds have inferior language and cognitive skills. This approach to academic remediation continues to extend Hart and Risley's language-deficit legacy. The effect of this perspective on teachers' orientations toward their students is further reinforced by academic disparities based on standardized tests that evaluate mainstream prescriptive literacy skills. Considering that the USA has the second highest child poverty rate among all industrialized countries (UNICEF Innocenti Research Centre, 2012), it is imperative that we take a course of action that differs from the traditional approach to educating children from economically impoverished backgrounds. Although recognizing the linguistic strengths of culturally diverse students is a necessary step in ameliorating this situation, leveling academic (and social) disparities between different SES groups must begin by acknowledging the ingrained language ideologies that continue to subordinate diverse dialects to a mythical "standard English". Until we can do this, deficit orientations and academic underachievement will continue to unfold in public schools across the country.

References

Au, K. (2008), *Multicultural Issues and Literacy Achievement*, Routledge, New York, NY.

Basso, K. (1996), *Wisdom Sits in Places: Landscape and Language Among the Western Apache*, University of New Mexico Press, Albuquerque, NM.

Bellafante, G. (2012), "Before a test, a poverty of words", *The New York Times*, available at: www.nytimes.com/2012/10/07/nyregion/for-poor-schoolchildren-a-poverty-of-words.html

Blum, S.D. (2014), "The language gap' – Liberal guilt creates another not-so-magic bullet", *Huffington Post*, available at: www.huffingtonpost.com/susan-d-blum/language-gap-liberal-guilt-creates-ano_b_5233638.html#es_share_ended

Blum, S.D. and Riley, K.C. (2014), "Selling the language gap", *Anthropology News*, available at: www.anthropology-news.org/index.php/2014/08/07/selling-the-language-gap/

Dudley-Marling, C. and Lucas, K. (2009), "Pathologizing the language and culture poor children", *Language Arts*, Vol. 86 No. 5, pp. 362-370.

Evans, G.W. (2004), "The environment of childhood poverty", *American Psychologist*, Vol. 59 No. 2, pp. 77-92.

Faltis, C.F. (2005), *Teaching English Language Learners in Elementary School Communities*, Pearson, London.

Fernald, A., Marchman, V.A. and Weisleder, A. (2013), "SES differences in language processing skill and vocabulary are evident at 18 months", *Developmental Science*, Vol. 16 No. 2, pp. 234-248.

Fránquiz, M.E., Martínez-Roldán, C. and Mercado, C. (2011), "Teaching Latina/o children's literature in multicultural contexts", in Wolf, S.A., Coats, K., Enciso, P. and Gould, S.J. (Eds), *The Mismeasure of Man*, Norton, New York, NY.

González, N., Moll, L.C. and Amanti, C. (2005), *Funds of Knowledge: Theorizing Practices in Households, Communities, and Classrooms*, Lawrence Erlbaum Associates, Mahwah, NJ.

Gould, S.J. (1981), *The Mismeasure of Man*, W.W. Norton & Company, New York, NY.

Guernsey, L. (2013), "Focusing on the 'word gap' with help from Hillary Clinton", *New America Foundation*, available at: http://earlyed.newamerica.net/blogposts/2013/focusing_on_the_word_gap_with_help_from_hillary_clinton-94301

Hart, B. and Risley, T. (1995), *Meaningful Differences in the Everyday Experience of Young American Children*, Paul H. Brookes Publishing Co., Baltimore, MD.

Heath, S.B. (1983), *Ways with Words: Language, Life, and Work in Communities and Classrooms*, Cambridge University Press, New York, NY.

Hoff, E. (2006), "How social contexts support and shape language development", *Developmental Review*, Vol. 26 No. 1, pp. 55-88.

Hymes, D. (1972), "On communicative competence", in Pride, J.B. and Holmes, J. (Eds), *Sociolinguistics*, Penguin, London, pp. 269-285.

Jensen, E. (2015), "The effects of poverty on the brain", *The Science Network*, available at: http://edoqs.com/eric-jensen

Johnson, E.J. (2014), "(Re)Categorizing language-minority literacies in restrictive educational contexts", *International Multilingual Research Journal*, Vol. 8 No. 3, pp. 167-188.

Labov, W. (1972), "Language in the Inner City: studies in the Black English Vernacular", University of Pennsylvania Press, Philadelphia, PA.

Loope, T. (2011), "Closing the 30 million word gap: a cochlear implant surgeon steps out of the operating room and into the community to better children's language environment", *The*

University of Chicago Institute for Translational Medicine, available at: http://itm.uchicago.edu/2011/07/29/closing-the-30-million-word-gap/

Ludden, J. (2014), "Efforts to close the achievement gap in kids start at home", *National Public Radio*, available at: www.npr.org/2014/03/17/289799002/efforts-to-close-the-achievement-gap-in-kids-start-at-home

McCarty, T.L. (2005a), *Language, Literacy, and Power in Schooling*, Lawrence Erlbaum Associates, Mahwah, NJ.

McCarty, T.L. (2005b), "Introduction: the continuing power of the 'great divide'", in McCarty, T.L. (Ed.), *Language, Literacy, and Power in Schooling*, Lawrence Erlbaum Associates, Mahwah, NJ, pp. 15-27.

Miller, P.J. and Sperry, D.E. (2012), "Déjà Vu: the continuing misrecognition of low-income children's verbal abilities", in Fiske, S.T. and Markus, H.R. (Eds), *Facing Social Class: How Societal Rank Influences Interaction*, Russell Sage, New York, NY, pp. 109-130.

Moll, L.C. and Ruiz, R. (2002), "The schooling of Latino children", in Suarez-Orozco, M.M. and Paez, M.M. (Eds), *Latinos: Remaking America*, University of California Press, Berkley, CA, pp. 362-374.

NPR Staff (2013), "Closing the 'word gap' between rich and poor", *National Public Radio*, available at: www.npr.org/2013/12/29/257922222/closing-the-word-gap-between-rich-and-poor

Ochs, E. (1982), "Talking to children in Western Samoa", *Language in Society*, Vol. 11 No. 1, pp. 77-104.

Office of Mayor Angel Taveras (2014), "City of providence launches 'providence talks", available at: www.providenceri.com/mayor/city-of-providence-launches-providence-talks

Payne, R. (2013), *A Framework for Understanding Poverty: A Cognitive Approach*, aha! Process, Highlands, TX.

Pérez, B. (2004), *Sociocultural Contexts of Language and Literacy*, Lawrence Erlbaum Associates, Mahwah, NJ.

Rich, M. (2014), "Trying to close a knowledge gap, word by word", *The New York Times*, available at: www.nytimes.com/2014/03/26/us/trying-to-close-a-knowledge-gap-word-by-word.html?_r=0

Rosenberg, T. (2013), "The power of talking to your baby", *The New York Times*, available at: http://opinionator.blogs.nytimes.com/2013/04/10/the-power-of-talking-to-your-baby/

Schieffelin, B.B. (1990), *The Give and Take of Everyday Life: Language Socialization of Kaluli Children*, Cambridge University Press, New York, NY.

Talbot, M. (2015), "The talking cure", *The New Yorker* (January 12 issue), available at: www.newyorker.com/magazine/2015/01/12/talking-cure

Tollefson, J.W. and Tsui, A.B.M. (2004), "The centrality of medium-of-instruction policy in sociopolitical processes", in Tollefson, J.W. and Tsui, A.B.M. (Eds), *Medium of Instruction Policies: Which Agenda? Whose Agenda?* Lawrence Erlbaum Associates, Mahwah, NJ, pp. 1-20.

UNICEF Innocenti Research Centre (2012), "Measuring child poverty: new league tables of child poverty in the world's rich countries", *Innocenti Report Card* 10, UNICEF Innocenti Research Centre, Florence, available at: www.unicef-irc.org/publications/660

Unmuth, K.L. (2014), "Providence talks' targets closing language gap", *Education Writers Association*, available at: www.ewa.org/blog-latino-ed-beat/providence-talks-targets-closing-language-gap

Zentella, A.C. (2005), *Building on Strength: Language and Literacy in Latino Families and Communities*, Teachers College Press, New York, NY.

Further reading

McCarty, T.L. and Watahomigie, L.J. (2004), "Language and literacy in American Indian and Alaska native communities", in Pérez, B. (Ed.), *Sociocultural Contexts of Language and Literacy*, Lawrence Erlbaum Associates, Mahwah, NJ, pp. 79-110.

Ochs, E. and Schieffelin, B.B. (1979), *Developmental Pragmatics*, Academic Press, New York, NY.

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