

Exploring Proverb Recognition Skill among Adolescents

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Abstract

Proverbs are figurative expressions capturing values and wisdom of our society. Literature suggests that proverb development begins during adolescence and continues throughout adulthood. Thus, the main purpose of the study was to check awareness of proverbs among adolescents in comparison to adults. For this study, proverb recognition task consisting of 20 proverbs and 20 non-proverbs were presented visually using DmDx software to participants of Group I (10-14 years) and Group II (18-24 years). A key press reaction time involving two alternate forced choice response format was adopted. Results of this cross sectional study design revealed that Group II had faster reaction time and higher accuracy rate compared to Group I and was statistically significant at 95% confidence level. The results documented are attributed to the meta-semantic hypothesis, which suggests Group I may have been less exposed to the proverbs hence processing it as an unfamiliar expression. This leads to active analysis of each word in the phrase, which is in contrast to how a familiar expression is processed by Group II subjects because of frequent exposure. In addition, the difference in lifestyle followed by the participants is also another contributing factor. Overall, the results give us valuable insight on the age related differences in strategies used for proverb recognition.

Key words: Proverb recognition, adolescents, adults, meta-semantic hypothesis.

Introduction

Proverbs are figurative expressions referring to statements that capture shared values, beliefs and wisdom of our society (Nippold, Uhden, & Schwarz, 1997). These commonly occurring statements are composed from common sense, experience and wisdom of our elders. Principally, a proverb constitutes ageless wisdom expressed in short phrases with moral concerns by means of poetry, imagery and metaphor (Gibbs & Beitel, 1995; Prahlad, 1996). Previous investigations suggest that comprehending a proverb requires several analytical skills of abstract

thinking, linguistic competence and intelligence (Nippold, Uhden, & Schwarz, 1997; Qualls & Harris, 2003). Apparently, in a social situation an individual must determine the proverbs meaning by combining contextual information along with worldly knowledge (Nippold & Haq, 1996). This is because proverbs are usually stored as a single unit and rarely occur in isolation (Owens, 1996). Hence, by combining these strategies proverbs are comprehended much faster and more accurately. Moreover, due to repeated exposure and higher cognitive-linguistic flexibility seen with increase in age the figurative concepts become more concrete in nature (Owens, 1996). Thus we can infer that comprehending a proverb is a complex interpersonal phenomenon.

Proverbs have been a subject of interest to various disciplines, like Speech Language Pathologists, since many years (Gibbs & Beitel, 1995). The emergence of need for Speech Language Pathologists to assess proverbs began with the inclusion of proverbial expressions in school curriculum (Nippold, 1991; 1993). In addition, these expressions also have become an integral part of day to day communication to such an extent that several researchers consider it as a universal characteristic of speech (Pollio, Smith, & Pollio, 1990). On the continuum, studies have also given us insight into proverb recognition as a good academic achievement indicator (Nippold, Uhden, & Schwarz, 1997; Nippold, Hegel, Uhden, & Bustamante, 1998).

Researchers have used proverb recognition and comprehension tasks as tools to measure abstract thinking which reflects upon cognitive ability in an individual (van Lancker, 1990). Like many cognitive abilities, proverb recognition improves with age and continues throughout one's adulthood (Nippold, 2006). Research evidence for this statement was provided by Nippold and Haq (1996). In their study on proverb explanation task adults performance was markedly higher in comparison to adolescents. It was also observed that the higher performance by adults started declining above 50 years of age. Similarly, Nippold, Allen, and Kirsh (2000) reported that adolescents performance was at par with that of adults for concrete proverbs, but had poorer scores when abstract proverbs were used. However, Levorato and Cacciari (2002) provided experimental evidence that figurative language requires a long time to be used in a creative way. These studies from literature collectively suggest a difference in cognitive strategies used by adolescents and adults.

Need for the Study

Acquisition and use of figurative language is a complex multifaceted phenomenon that varies over time and between cultures. Thus, investigating proverb recognition in children is an important area of research. Literature suggests that children are frequently exposed to proverbs, either in spoken or written form, and is manifested in classroom, home and social context (Owens, 1996). This exposure is expected to become more concrete between 11-14 years, as they correspond with highest growth in analytical skills (Nippold & Haq, 1996). Moreover, proverb recognition helps us in understanding that language growth persists even beyond childhood. Hence, investigation among diverse populations is needed that focuses primarily upon identifying figurative language deficits (Nippold, Uhden, & Schwarz, 1997). While research in this area is limited in Indian context, the study will contribute to the small body of literature in our understanding of proverb recognition across typically developing children. In addition, we hypothesize that there may be difference in the way how children process the proverb in comparison to adults, thereby we can expect reduced performance among younger children in the study.

Aim of the Study

The present study was undertaken to investigate proverb recognition among Kannada speaking adolescents in comparison to adults.

Method

Total of 40 subjects participated in this cross sectional study design. They were further divided into two groups. Group I consisted of 20 subjects within the age range of 10-14 years (mean age of 13.4years) and Group II consisted of 20 gender matched subjects within 18-24 years (mean age of 22.6 years). All the subjects were native speakers of Kannada language. The WHO disability checklist (Singhia et al., 2007) was administered to rule out any disability. The subjects were matched for lower middle class to upper middle socio economic class, based on the scale for measuring socio economic status (Aggarwal et al., 2005).

For the proverb recognition task, 20 proverbs and 20 non-proverb phrases (Appendix I) of Kannada language were considered. The proverbs were included from text books of the

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participants in addition to the commonly spoken proverbial expressions as determined by Speech Language Pathologists and teachers. In case of non-proverbs, meaningful phrases were included.

The stimuli were programmed to be presented visually through DmDx software (Version 4.0.6.0) installed in a Dell 1450 laptop running on Windows 7. DmDx (Forster & Forster, 2003) is freely accessible programming based software widely used to quantify reaction time for cognitive-linguistic experiments. DmDx script was written in .rtf format and loaded to present the stimuli in a uniform timed manner throughout the proverb recognition task. Calibration of DmDx running was performed prior to testing using TimeDx software to ensure optimum automatic reaction time calculation.

Each subject was seated upright in their comfortable position in a relatively noise free environment. All the subjects were tested individually in front of a 14 inch display screen. The proverb recognition task involved randomized presentation of proverb and/ or non- proverb phrase in middle of the laptop screen using 20 font size of black color on a white background. A two alternative forced response choice involving key press reaction time was adopted for the study. The subjects were instructed to press <1> key button for a proverb and press <0> key button for a non-proverb quickly and accurately. Following these instructions, subjects were given three trial items before the commencement of the actual test to ensure familiarity with the test procedure. After which, total of 1600 tokens (40 subjects x 40 phrases) was obtained with each session lasting 10 minutes. The data was analyzed for reaction time (msec) and accuracy rate (%). The results of non-proverbs were not included in the analysis as it was not the objective of the study. The reaction time was automatically calculated by the DmDx software. For the calculation of accuracy rate, every correct answer was given a score of 1 and for an incorrect answer 0. The offline data analyzed excluded error and lost trials. Descriptive statistics was performed using statistical package SPSS (Version 17). Independent t- test was administered to compare if the results were statistically significant at 95% confidence level.

Results

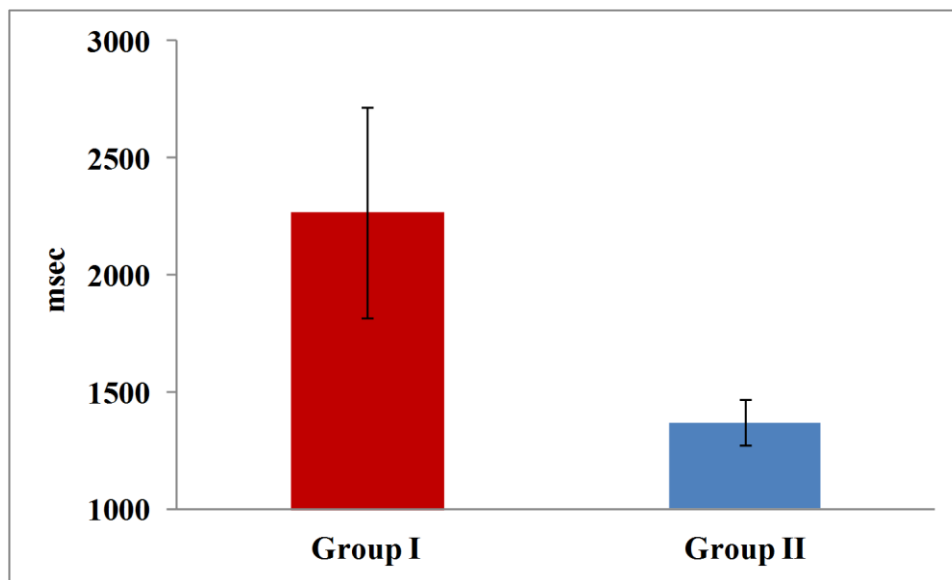
Scores of proverb recognition task revealed that Group I had a higher mean reaction time of 2267.78 (± 452.81) msec in comparison to 1372.36 (± 98.05) msec of Group II subjects.

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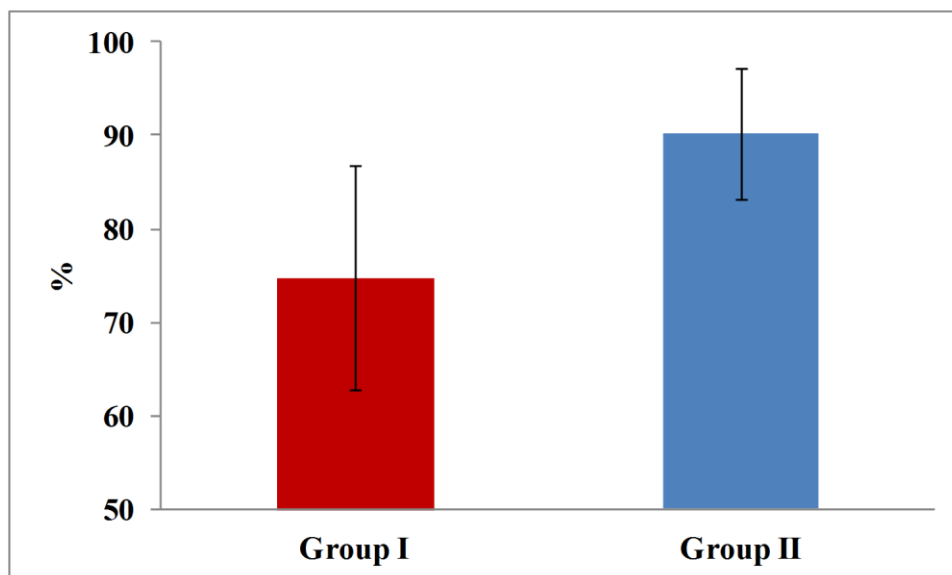
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Similarly in accuracy rate, Group I had decreased mean accuracy rate of 74.8 (± 12.04) % and Group II had 90.25 (± 6.97) %. These results prove our hypothesis of decreased performance by Group I i.e., adolescents in comparison to Group II i.e., adults. The results of mean reaction time and accuracy rate are depicted in Graph 1 and 2 respectively.

In the results it was also observed that female subjects had performed the proverb recognition task faster and more accurately in comparison to male subjects across both the groups. Independent t-test results indicated statistical significant difference at 95% confidence level for reaction time and accuracy rate for Group I and Group II. Statistical values obtained for mean reaction time was [t (44) = -8.66; p=0.000] and for accuracy rate was [t (44) = 5.10; p=0.000].



Graph 1: Mean and SD of reaction time in msec for proverb recognition task across Group I and Group II.



Graph 2: Mean and SD of accuracy rate in % for proverb recognition task across Group I and Group II.

Discussion

The results of the current study support the view put forward in meta-semantic hypothesis. According to Nippold and Haq (1996) the meta-semantic hypothesis emphasizes difference in processing familiar expressions compared to unfamiliar ones. It is reported that unfamiliar expressions undergo series of active analysis of the individual words, whereas familiar expressions are previously stored as a whole unit (Nippold & Haq, 1996). These differences in processing strategies would have been adopted by the study participants that consequently lead to slower reaction time in adolescents i.e., Group I. Specifically, we can say that Group I participants would have had minimal exposure to the proverbs, thereby categorizing them under unfamiliar item. This in turn would have lead to multiple readings and slower processing pace leading to increased reaction time and reduced accuracy rate (Katz & Ferretti, 2001). On the contrary, Group II subjects would have more frequently been exposed to these expressions. Thereby, the proverbs would have been recognized from their semantic memory as soon as they read it (Chappman et al., 1997). In addition, due to more exposure to these expressions the adult participants would have categorized it as a familiar single unit (Owens, 1996).

Literature supports that recognition of a familiar proverb is complete as soon as one reads the second word in it (Katz & Ferretti, 2001). On the contrary, un-familiar proverbs are recognized only after reading the entire phrase, thereby causing delayed recognition of the non-proverb and leading to increased reaction time and decreased accuracy rate. The findings of the study are in consonance with studies reported in literature supporting better proverb recognition by adults than adolescents for proverbial expressions (Nippold & Haq, 1996; Nippold et al., 1997).

It is also noteworthy to report the differences in results among the adolescents population to be due to adoption of different lifestyle. Studies report that the current younger generation children spends more time on gadgets and other technology based tools, while having less interest and interaction with family, specifically elders, who have been passing these traditional expressions successfully to next generation (Brown & Wright-Harp, 2011). Having strong socio-cultural backgrounds with high family moral values have long been an integral part of our Indian tradition since many centuries. This however maybe drifting away from our culture now because of the modernization of lifestyle, that is preferred more by younger aged population. This in turn is expected to create a less communicative environment in the early days of secondary language development. These factors are the negative consequences of modernization that is reflected in reduced awareness of proverbs, as observed in the study results. However, more details pertaining to parent-child interaction and family details has to be considered to further comment in detail.

In the study the proverbs were presented with no contextual cues or at isolation. Therefore, it can also be commented that the method adopted in the present study was to quantify the responses for proverb awareness rather than comprehension ability. This in turn can also reflect the memory recalling ability. Researchers have also reported that the mode of response to be another factor acting as a variable in proverb recognition task. Differences in results were speculated by Qualls and Harris (2003) for spontaneous response versus forced response format in their study on figurative language. Their study results are still debatable and have no equivocal viewpoint. Hence, the current study adopted a two alternative forced choice method as it was best suited for proverb recognition task.

Earlier work done by van Lancker (1990) provided experimental evidence for inclusion of rating scale while exploring proverb recognition. The author reported that a methodology with no rating of proverbs can affect study results by increasing the reaction time and decreasing the accuracy rate. Moreover, the dual combination of length of the stimuli along with rating scale can further add on to delayed reaction time which may have more impact than the individual factors. Though the current study did not adopt any rating scale for stimuli selection only commonly occurring proverbs as determined by Speech Language Pathologists and teachers were taken. We also took into account of controlling the stimuli length by maintaining the length of the phrases, not using familiarity ratings is the drawback of the study.

Conclusion

The present study was taken with the aim to get an insight on proverb recognition among adolescents compared to adults. The data obtained were consistent with literature reports that indicated adult subjects had faster reaction time and higher accuracy rate compared to adolescents. In addition, statistical significant differences were also noted between male and female subjects. Overall, the results of the present study will help us in understanding age related differences in the strategies employed for proverb recognition. The data may help professionals in health and education setups to use this as a red flag for delay in higher language development. Further studies should focus on proverb recognition across varying stimuli like concrete vs. abstract on a larger age range.

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Appendix I

Sl No.	Proverbs	Non proverbs
1.	na:ji ba:la ja:va:galu ðoŋku	a:ðisino:ðu bi:l̥isino:ðu uru iho:gaðu
2.	kai kesara:ðare ba:jmosaru	ða:ri no:ðuṭṭa hedzde ha:ku
3.	aṭi a:se gaṭi ke:ðu	iṅḍina kaṭa na: eja la:b ^h a
4.	kaige baṅḍa ṭṭṭu ba:jge baralilla	vo:ḍiḍava gedḍa a:ḍiḍava biḍḍa
5.	huṭṭa guṇa suṭṭaru: ho:gaðu	saṭjakke sa:villa su ige ḍzajavilla
6.	maṅgana kaijalli maṅikja koṭṭaha:ge	he: i upajo:gavilla ma:ḍi kelasavilla
7.	ha:sige iḍḍaṭu ka:lu t̥fa:t̥fu	maneje maṅṭra:laja manase: ḍe:va:laja
8.	ibbara dzaga a mu:ranejavarige la:b ^h a	bevu bella jellara ma:ṭalla
9.	jemme me:le ma e suriḍa:ha:ge	ḍevara a:ṭa ḍzanara no:ṭa
10.	gubbi me:le bramha:ṣṭave?	aṭṭe ba:ji ja:va:galu: koŋku
11.	uppigiṅṭa ruṭṭi illa ṭa:jigiṅṭa baṅḍ ^h uvilla	ha:vina ḍveṣa hanneradu varuṣa
12.	manege beṅki biḍḍa:ga ba:vi ṭo:ḍiḍa	saṅṅa makka u ḍe:vara sama:na
13.	ja:raḍḍo ḍuḍḍalli jellamma dz:ṭre	ni:ru viṣava:ḍaru: amruṭa viṣava:gaðu
14.	kumba a ka:ji kaḍḍava hegalu muṭṭi no:ḍiḍa	manegoṅḍu mara u:riḅoṅḍu ka:ðu
15.	u:ṭa ballavanige ro:gavilla ma:ṭuballavanige dzagavilla	na:lige iḍḍaṭu nela nekku
16.	anna ha:kiḍa manege kann ha:kabeḍa	lo:kakke sa:riḍava manege balla
17.	ve:ḍa su a:ḍaru: ga:ḍe su a:gaðu	na:ji bekku ja:va:galu saṭruḅa u
18.	ahaṅka:rakke uḍa:si:nave maḍḍu	sose me:lina ko:pa aḍige me:le
19.	jellara maneja ḍo:se ṭu:ṭu	no:ḍiḍḍanne he: o: maha:ra:ja
20.	ḍevaru koṭṭaru: pu:dza:ri koḍaḍu	ka:ḍige beṅki biḍḍa:ga niḍḍe ma:ḍiḍḍa

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