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Metonymic relations underlying the one-word utterances of Afrikaans-speaking infants and toddlers

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Abstract

Children's processing and comprehension of metonymy have received little attention in the developmental literature, which has mainly focused on children's acquisition of metaphor abilities. However, it has been found that metonymy production and comprehension precede metaphor production and comprehension (Falkum et al., 2017; Nerlich et al., 1999; Pérez-Hernández & Duvignau, 2016; Runblad & Annaz, 2010). Nerlich et al. (1999) suggest that metonymic relations are exploited in overextensions produced by children up to age 2;5 and call these "compelled metonymic overextensions". At this very early age, a child's vocabulary is still relatively small, and this compels them to extend already known words to cope with their increasing communicative needs. These overextensions are, however, in most cases not random, as some type of associative relation (e.g., CAUSE-EFFECT, OBJECT-ACT, CONTAINER-CONTENT, etc.) between the concepts referred to can be identified. This study focuses on the metonymic relations exploited by 18 Afrikaans-speaking infants and toddlers (between the ages of 0;6 and 2;0) in their early overextensions. The metonymic relations as described by Norrick (1981) as well as Radden and Kövecses (1999) are employed in the analysis. A total of 207 out of 1371 one-word utterances were identified as compelled metonymic overextensions and 11 types of metonymic relations could be identified as underlying these utterances. This study illustrates that the metonymic relations identified in such young children's early language provide insight and understanding into how they categorise and associate various concepts with each other.

Keywords: Afrikaans; compelled metonymic overextension; conceptualisation; child language; first language acquisition; metonymic relation; metonymy; one-word utterance

1. Introduction

Little is known about how young pre-school children may possibly exploit metonymic relations that lead to utterances that, from an adult perspective, can be called

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metonyms. Köder and Falkum (2020, p. 191) point out that there is growing consensus that children have early pragmatic competence but studies on children's processing and comprehension of metonymy have received little attention in the developmental literature, which has mainly focused on children's acquisition of metaphor abilities (see Gottfried, 1997; Özçalışkan, 2005; Özçalışkan, 2007; Siqueira & Gibbs, 2007; Starr & Srinivasan, 2018; Stites & Özçalışkan, 2013).

According to Radden and Kövecses (1999: 21) "[m]etonymy is a cognitive process in which one conceptual entity, the vehicle, provides mental access to another conceptual entity, the target, within the same idealized cognitive model". The reference-point entity serves as the vehicle for accessing the target – for instance, in the metonymic utterance *She's just a pretty face*, the "pretty face" serves as the vehicle for accessing the "person" as target. The vehicle and target are both conceptually present although one of them is seen as being more salient than the other and is therefore selected as the vehicle to provide access to the target (Radden & Kövecses, 1999:19; Langacker, 1993:30). It is important to note that metonymic relations are in principle reversible, for instance, both CAUSE FOR EFFECT and EFFECT FOR CAUSE are listed as metonymic relations. "We therefore need to ask if there are any preferred metonymic construals and, if this is the case, which 'cognitive principles' govern the selection of one type of vehicle entity over another" (Radden & Kövecses, 2007:338).

Since the late 1990s and early 2000s, several authors have suggested that metonymy is a cognitive phenomenon that may be even more fundamental and basic than metaphor (Benczes et al., 2011, p. 1). Panther and Thornburg (2007, p. 243) state that "[l]ike metaphor, metonymy is a means by which concepts with relatively little content may be conceptually elaborated and enriched". Runblad and Annaz (2010, p. 556) argue that metonymy production and comprehension precede metaphor production and comprehension at any point in childhood because metonymy is cognitively more basic than metaphor as it only requires an association between concepts within the same conceptual domain. Pérez-Hernández and Duvignau (2016) also found that very young participants (1;8 to 4;2) initially use more metonymic than metaphoric utterances but that the use of metaphors also increases with age.

According to Falkum et al. (2017, p. 88) metonymy is used by speakers to communicate a variety of seemingly indefinite number of context-dependent meanings. In other words, an expression is used to refer to something that falls outside its conventional denotation, but there is a clear associative relation linking the two concepts. Nerlich et al. (1999) suggest that metonymic relations are exploited in overextensions produced by children up to about age 2;5. They call these "compelled metonymic overextensions" because "they are based on the fact that at this age a child's vocabulary, categories and conceptual systems are still relatively small and unstructured. This scarcity compels them to extend already known words to cope with increasing communicative needs, to comment on what they see and to request what they want" (Nerlich et al., 1999:364). Overextension takes place when a child applies a lexical item to members of a category that are perceptually similar, conceptually contiguous, or spatio-temporally related, therefore using the lexical item in a broader context than the denotation thereof, e.g., ball for an apple; horse for a cow, dada used for both father and mother, etc. (Ambridge et al., 2013; Clark, 1993; 2016; Gelman et al., 1998; Hoek et al., 1986; Huttenlocher & Smiley, 1987; Nerlich et al., 1999; Walaszewska, 2011).

Pérez-Hernández and Duvignau (2016), who studied the language of French-speaking children between the ages of 1;8 and 4;2, found that children use "metonymy-based semantic approximations", such as SPECIFIC-GENERIC, EFFECT-CAUSE and WHOLE (ACTION)-ONE OF ITS PARTS, as a tool to fill gaps in their immature lexicons. Very young children therefore see similarities, connections and class-inclusions between category members and display early categorisation abilities which may lead to overextensions due to them not yet having acquired the more appropriate or conventionalised term (Nerlich et al., 1999, p. 367; Pouscoulous, 2014, p. 253).

It is important to note that this notion of metonymy in child language differs from the one assumed by classical rhetoric "where the speaker is seen as consciously 'replacing' a conventional, literal expression with a related metonymic one" (Falkum et al., 2017, p. 91). It has been proven that children have an early ability to make use of salient associative relations for communicative purposes, but this does not necessarily have to involve knowledge of the conventional term for the intended referent (Falkum et al., 2017, p. 91). It is therefore assumed that very young children exploiting metonymic relations in their utterances do not yet know the term for the concept they are referring to.

Nerlich et al. (1999, pp. 368–369) provide some examples from Braine's (1976) corpus of two-word utterances which have an underlying metonymic relation, for instance:

David (1;9): want pocket [container-contained] {request}

David (1;10): that hello [words-object] {comment – indicating or

identifying toy telephone}
Johnathan (1;11): more book [instrument-action] {request}

Johnathan (2;0): daddy eat [action-object] {comment – referred to daddy's food such as a piece of bread he took from his

father's plate}

Although these utterances can be viewed as overextensions, it is also evident that there are certain metonymic relations underlying the associations the children make between the concepts. Falkum et al. (2017, p. 90) suggest that some of the strategies young children use to fill gaps in their lexicon, such as overextension, are the precursors to metonymy. Nerlich et al. (1999, p. 369) emphasise that children with limited lexicons focus on, for instance, "one object or attribute of an object to achieve certain speech acts in a metonymical way. They focus on one salient feature in a set framework or frame of repeated interactions with the caregiver or parent". Later on, when children have a broader vocabulary (usually from age 2;5 onwards) and the metonymic overextensions are replaced by the "conventionalised terms", they start making use of "creative metonymical shrinking" despite the fact that they could express the same meaning with the words they know (Nerlich et al., 1999, p. 363). This study will adopt Nerlich et al.'s (1999) view of "compelled metonymic overextensions" and focus on the metonymic relations underlying these utterances made by children just starting to acquire their language.

In a study on 21 Afrikaans-speaking children's (between the ages of 0;6 and 2;0) early form-meaning mappings, it was found that these infants and toddlers use compelled metonymic overextensions while uttering their first lexical items

(i.e., one-word utterances), for instance initially naming all women *mamma* ("mother") (Brink, 2017). However, the specific metonymic relations underlying the children's compelled metonymic overextensions were not identified and analysed further in that study. Focusing on the metonymic relations exploited by infants and toddlers in their early overextensions may provide insights into the early stages of language acquisition and how categorisation abilities are used to associate certain concepts with each other based on specific conceptual links.

Norrick (1981) provides a detailed exposition of 17 types of metonymic relations underlying utterances in adult language. Nerlich et al. (1999, pp. 368–369) use this list to provide some examples of the metonymic relations in very young children's utterances, but their discussion is very limited, and another study extensively identifying and describing the types of metonymic relations in children's early language, especially at the one-word stage, could not be traced. Radden and Kövecses (1999) further build on Norrick's list and identify several additional types of metonymic relations in adult language, classified under idealised cognitive models (ICMs). The Norrick (1981) and Radden and Kövecses (1999) lists are therefore revisited to determine which of these relations can also be identified in the utterances of Afrikaans-speaking infants and toddlers, and in what way. There are some overlap and differences between these lists, therefore providing an opportunity of combining them for analysing the Afrikaans child language data.

In sum, the research question of this study is which types of underlying metonymic relations can be identified in Afrikaans-speaking infants' and toddlers' compelled metonymic overextensions. The hypothesis is that several of Norrick's (1981) and Radden and Kövecses' (1999) metonymic relations will also be identified in the early language of infants and toddlers due to these children using certain strategies to fill gaps in their lexicons. Children's everyday embodied experiences are also within the same conceptual world that adults live in, and these metonymic relations are a reflection of existing conceptual links.

This research question is addressed by discussing the relevant metonymic relations set out by Norrick (1981) and Radden and Kövecses (1999). One of the aims of this study is to combine and integrate these two lists for the purpose of identifying the types of metonymic relations in the Afrikaans child language data set. This is then followed by a discussion of the method of investigation. Lastly, the results and conclusion of the study are discussed and motivated through an illustration of usage-based language data.

2. Types of metonymic relations

Falkum et al. (2017, p. 90) state that "[i]n metonymy, salient associative relations (typically relations of contiguity) are exploited for the purpose of communication" and that children's ability to identify such relations is present from an early age. Norrick (1981, p. 41) proposes that the ultimate source of association by contiguity within perception and interpretation lies in inference; people build up a stock of these associations based on their experiences. Several indexes of metonymic relations have been proposed thus far (see, for instance, Barcelona, 2011; Carrión et al., 2018; Lakoff & Johnson, 1980). Seeing that new metonyms can continually be created on the basis

of metonymic relations as language and conceptualisation evolve, these indexes may constantly be expanded.

Norrick's (1981, pp. 86-100) classification and exposition of the relations/ associations as well as the metonymic principles underlying metonymic utterances, conducted from a semiotic perspective, contributed greatly to the body of literature on metonymy. Radden and Kövecses (1999, pp. 17-59) further build on Norrick's index, providing an extensive classification of metonymic relations underlying adults' metonymic utterances. According to Littlemore (2015, p. 21), their classification has made a significant contribution to the metonymy and cognitive linguistics literature and is still widely cited. Radden and Kövecses correlate the metonymic relations with Lakoff's (1987) framework of ICMs, which they believe capture metonymic conceptualisation processes best. According to Ruiz de Mendoza Ibáñez and Pascual Aransaez (1997, p. 262) an ICM "is a conventionalized pattern of belief or communication used in understanding" and is therefore a way of organising knowledge. Radden and Kövecses (1999, p. 21) explain ICMs as models of everything that we conceptualise, including our conceptualisation of things and events, word forms and their meanings, and things and events in the real world.

The ICM concept is meant to include not only people's encyclopaedic knowledge of a particular domain but also the cultural models they are part of. The ICM notion is not restricted to either the world of reality, the world of conceptualization or the world of language, but [...] may cut across ontological realms. ICMs and the network of conceptual relationships characterizing them give rise to associations which may be exploited in metonymic transfer. (Radden & Kövecses, 1999, p. 20).

Although some of Radden and Kövecses' types overlap and/or are based on Norrick's types, there are also metonymic relations in their list that Norrick does not refer to or that are more nuanced than his descriptions of the relations. Littlemore (2015, p. 22) provides a taxonomy of Radden and Kövecses' key metonymic relations. I have used this taxonomy as a starting point but also added other types mentioned by Radden and Kövecses (1999) that may prove to be relevant for child language. The combined and consolidated list of metonymic relations employed in the data analysis of this study is presented in Table 1.

These metonymic relations can be viewed as a representation of the way adults perceive connections between phenomena and concepts in the world; everyday language reflects some of these relations. These types of metonymic relations can be identified as underlying adult language, resulting in metonymic utterances, but this leads to the question of whether they can also be identified as underlying the compelled metonymic overextensions of very young children.

Norrick (1981, p. 41) explains that the contiguity and fuzziness of semiotic categories make it difficult to draw clear-cut boundaries between certain relations, and this may especially be true for child language that is notorious for its fuzziness. However, categorising Afrikaans-speaking children's compelled metonymic overextensions according to the metonymic relation they are exploiting may provide insight into how these young children already relate certain concepts to each other, even though their vocabularies are very limited.

Table 1. Consolidated list of types of metonymic relations for the analysis of early child language

Category/ICM	Type of metonymic relation	Examples
Causation	CAUSE-EFFECT	FIRE and HEAT
		WRITING INVITATIONS and INVITING GUESTS
		slow road for "slow traffic resulting
		from the poor state of the road"
Production	PRODUCER-PRODUCT	BAKER and BREAD
roduction	PRODUCER PRODUCT	BOOK and AUTHOR
		She took out the <i>hoover</i> .
	NATURAL COURCE MATURAL	ACORN and an OAK
	NATURAL SOURCE-NATURAL	RYE and BREAD
	PRODUCT	
	INSTRUMENT-PRODUCT	WINE PRESS and WINE
		OVEN and BREAD
	PLACE-PRODUCT MADE THERE	china, mocha, camembert
Scale	ENDS—WHOLE SCALE	How old are you? for "What is your age?"
Constitution	MATERIAL CONSTITUTING AN OBJECT-	wood for "forest"
	OBJECT	
Acts and major	OBJECT-ACT	FOOD and EATING
participants/agents	obsect her	CIGARETTE and SMOKING
participants/agents		to blanket the bed
	INSTRUMENT-ACT	CUP and DRINKING
		GUN and SHOOTING
		to ski; to hammer
	AGENT-ACT	BAKER and BAKING
		TAILOR and SEWING
		to author a new book
	AGENT-INSTRUMENT	DRIVER and CAR
		SAILOR and SHIP
		the pen for "writer"
	RESULT-ACT(ION)	to landscape the garden
	MANNER-ACT(ION)	to tiptoe into the room
	MEANS-ACT(ION)	He <i>sneezed</i> the tissue off the table.
		to summer in Paris
	TIME-ACT(ION)	
	DESTINATION-MOTION	to porch the newspaper
Category and member(s)	CATEGORY-MEMBER/INDIVIDUAL OF	FOOD and APPLE
	THE CATEGORY	aspirin for any pain-relieving tablet
		Every Tom, Dick and Harry
Category and property	SALIENT/DEFINING PROPERTY— CATEGORY	The brothers needed some muscle
Thing and part	(PHYSICAL) WHOLE—PART	wheels and car
,		America for "United States"
		The hired hands are here
Event	ACT-COMPLEX ACT/SUB-EVENT-	DRIVING and TURNING A STEERING WHEEL (and
	WHOLE EVENT	other processes involved in driving
		Jay and Denise are to walk up the aisle
		CHURCH BUILDING and CHURCH AS INSTITUTION
Institution		
Institution	CENTRAL FACTOR—INSTITUTION	
Institution	CENTRAL FACTOR—INSTITUTION	MEDICINE and HOSPITALS, DOCTORS, NURSES,
		MEDICINE and HOSPITALS, DOCTORS, NURSES, etc. (the whole institution)
Institution	CENTRAL FACTOR—INSTITUTION CONTAINER—CONTENT	MEDICINE and HOSPITALS, DOCTORS, NURSES, etc. (the whole institution) MILK BOTTLE and MILK
		MEDICINE and HOSPITALS, DOCTORS, NURSES, etc. (the whole institution) MILK BOTTLE and MILK CHIPS PACKET and CHIPS
		MEDICINE and HOSPITALS, DOCTORS, NURSES, etc. (the whole institution) MILK BOTTLE and MILK CHIPS PACKET and CHIPS The bottle is sour
		MEDICINE and HOSPITALS, DOCTORS, NURSES, etc. (the whole institution) MILK BOTTLE and MILK CHIPS PACKET and CHIPS
	CONTAINER-CONTENT	MEDICINE and HOSPITALS, DOCTORS, NURSES, etc. (the whole institution) MILK BOTTLE and MILK CHIPS PACKET and CHIPS The bottle is sour
	CONTAINER-CONTENT	MEDICINE and HOSPITALS, DOCTORS, NURSES, etc. (the whole institution) MILK BOTTLE and MILK CHIPS PACKET and CHIPS The bottle is sour CASSOCK and CLERGYMAN
Containment	CONTAINER-CONTENT COSTUME-WEARER	MEDICINE and HOSPITALS, DOCTORS, NURSES, etc. (the whole institution) MILK BOTTLE and MILK CHIPS PACKET and CHIPS The bottle is sour CASSOCK and CLERGYMAN CROWN and MONARCH HOUSE AND HOUSE OCCUPANT(S)
Containment	CONTAINER—CONTENT COSTUME—WEARER LOCALITY—OCCUPANT/PLACE—	MEDICINE and HOSPITALS, DOCTORS, NURSES, etc. (the whole institution) MILK BOTTLE and MILK CHIPS PACKET and CHIPS The bottle is sour CASSOCK and CLERGYMAN CROWN and MONARCH

(Continued)

Table 1. (Continued)

Category/ICM	Type of metonymic relation	Examples
	PLACE-EVENT	<i>Waterloo</i> for "battle fought at Waterloo"
Experience and convention	PHENOMENON—MEASUREMENT/THING PERCEIVED—PERCEPTION	BULKY OBJECTS AS HEAVY and COMPACT OBJECTS AS LIGHT (even if they are the same weight) sight for the "thing seen"
	MANIFESTATION-DEFINITION	LUNCH AS A COLLECTION OF FOOD and LUNCH AS A CULTURALLY DETERMINED HABIT OR INSTITUTION
Possession	POSSESSOR-POSSESSION	HARRY and HARRY'S COAT He married <i>money</i> and became an MP
	CONTROLLED-CONTROLLER	The Mercedes has arrived

3. Method

This research forms part of a project in which the Afrikaans data set is analysed for various purposes. Below, the participants, respondents, data collection method and ethical considerations are discussed (see Brink, 2017; 2020; Brink & Breed, 2017 for more detail) and the criteria for the classification of the types of metonymic relations are described.

3.1. Participants

The participants of the project were 21 children (8 male; 13 female) between the ages of 0;6 and 2;0, and their mothers were the respondents. Twenty participants' mother tongue is Afrikaans, and one participant is growing up bilingually in Afrikaans and Dutch. This child's data were however not included in the data set of this study as there are other factors to be reckoned with when a child is bilingual. The participants were located in the provinces of Gauteng, Mpumalanga, North-West, Limpopo and the Free State, i.e., from the northern parts of South Africa, at the time of data collection.

The mothers fulfilled the role of observers of the children in their natural settings, taking notes of their children's natural and spontaneous first lexical items as well as the contexts in which these items were used. Parents understand their children's language best because they report from a wide database of daily interaction with them (Pan, 2012, p. 104). This is important in interpreting a lexical item that may not be as clear to an outside observer who does not have former experience with the child. Furthermore, the parent report is the least invasive method of collecting language data from such young participants where the presence of an unknown observer/researcher may make them feel uncomfortable. The main aim was to collect natural and spontaneous speech sample sets from the children in their everyday environments. Due to ethical constraints and a limited timeframe for data collection, it was not possible to video or audio record the children. This may be seen as a limitation of this study although it has been proven that the parent report method is a reliable and convenient measurement of early child language use (Bedore et al., 2011; Eriksson, 2016; Marchman et al., 2017; Peccei, 2006; Rescorla & Alley, 2001).

3.2. Data collection procedure

After recruiting respondents by means of snowball sampling and social media, the respondents completed an electronic diary template (in Microsoft Word) for a period

of five months. The template contained the following columns: (1) lexical item; (2) contexts of use (at least three); (3) possible meaning and (4) age at which the child used the lexical item for the first time. Additional resources provided to the respondents included an information document containing the details of the study, and a short video in which I tutored the respondents on how the diary template should be completed. The respondents sent in their first draft of diary entries after one month of data collection after which certain recommendations were made on how the entries could be improved for the data to be more suitable for the aims of the research.

In the last month of data collection, a questionnaire was also sent to the respondents in which they had to provide certain contextual information on the child's everyday environment such as how many members of the family are living with the child, other languages the child hears regularly, information about the child's caregiver, pets, daily routines, activities, and so forth. This questionnaire was not formally analysed as part of the data set but was used to (1) in some cases clear up possible uncertainties regarding the context in which certain lexical items were used; (2) prompt the respondent to possibly remember other lexical items that were not initially included in the diary entries (such as the names of family members or objects that form part of favourite routines); and (3) elucidate the diary entries as best as possible (e.g., knowing that the child grows up on a game farm would make it clearer why s/he frequently uses the word *koedoe* ("kudu")).

3.3. Ethical considerations

Ethical clearance for the data collection of the project was obtained from the North-West University, South Africa (NWU-00184-14-A7). The respondents signed consent forms and were informed that they could withdraw their participation at any point during data collection. Pseudonyms were allocated to the children to protect their privacy and the data were fully anonymised.

3.4. Criteria for classification of metonymic overextensions

Microsoft Excel was used for the annotation and classification of the utterances for the purpose of this current study. The data set consists of 1371 usable utterances¹ that were included in the study.

The first phase of classification involved identifying the utterances that may have an underlying metonymic relation, therefore being compelled metonymic overextensions. An utterance was classified as a compelled metonymic overextension when a complex conceptualisation process or association between concepts that signify some type of underlying metonymic relation (see Table 1) could be identified. For example, when a child said *bad* ("bath") while in the bath, it was not classified as a compelled metonymic overextension because the association between the concepts is simple and easily derived. The child is merely commenting on what s/he is doing or

¹A total of 67 utterances in the data set were annotated as "unusable", for one or more of the following reasons: (1) The respondent was uncertain about the meaning or function of the particular lexical item; (2) A lexical item was not used in a specific, distinguishable context; (3) The lexical item was not established or identifiable and (4) Too little information was provided by the respondent to be able to derive a specific meaning or intention of the utterance.

where s/he is. But when the child was for example feeling tired and associates bathing with a process that takes place before going to sleep, and the child said *bad* ("bath") while the family was doing something else, it implies a more complex association and may be considered as an utterance with an underlying metonymic relation.

Another example is that when a child was merely making sound effects that accompanied a specific act, such as *am-am* while playing with a toy car or *wheee* while swinging, it was not considered as having an underlying metonymic relation. However, if the child named the specific object according to the sound it makes, i.e., a toy car an *am-am* or a swing a *wheee*, it would be considered a compelled metonymic overextension. A total of 207 utterances in the data set were identified as compelled metonymic overextensions during the first phase of classification.

The second phase of classification entailed determining which type of metonymic relation, as presented in Table 1, the child is possibly exploiting while making the utterance. As Littlemore (2015, p. 27) points out, identifying and categorising instances of metonymy in real-life data are often difficult because utterances can convey several different meanings at once. This also rings true for first utterances that consist of only one lexical item (and not a whole phrase or sentence) and meanings and metonymic relations should then be derived from the contexts in which the utterances were used.

The third phase of classification involved organising the data according to the types of metonymic relations as well as the children who made the utterances. In two of the children's data, no compelled metonymic overextensions could be identified, bringing the total number of participants for this study to 18. These two children were also those who produced the smallest number of utterances in the data set. There is, however, not necessarily a predictive relationship between age and the total number of usable utterances or compelled metonymic relations the children produced. Children start to use their first lexical items at various ages and therefore it was necessary to include children from a wide age range (0;6 to 2;0). Because this study focuses on children's first lexical items, it was also expected that the number of utterances with an underlying metonymic relation would not be very high.

4. Results and discussion

Of the 30 types of metonymic relations listed in Table 1, 11 were identified in the data set. Table 2 indicates which types were identified together with their frequency, as well as an example of such an utterance from the data set. These types of metonymic relations as well as other relevant examples of the compelled metonymic overextensions are discussed in detail in the following subsections.

4.1. Causation

4.1.1. CAUSE-EFFECT

Norrick (1981, pp. 41–42) explains that people regularly infer both causes from effects and effects from causes, and that this principle for instance defines the relation between a falling object and the existence of gravity. This type of metonymic relation

such as clothes, a chair or a cup belongs to her mother

Table 2. Types of metonymic relations identified in the data set			
Category/ICM	Type of metonymic relation ^a	Frequency (N = 207)	Example of utterance
Causation	EFFECT-CAUSE	3	Child says <i>nna</i> > <i>eina</i> ("ouch") while pointing to the oven
Acts and major participants/agents	OBJECT-ACT	25	Child says toessies > kossies ("food") while she is eating
, , , , ,	INSTRUMENT-ACT	21	Child says stappies ("walk") when she sees her pram/ stroller
	ACT-AGENT	6	Child says <i>byt</i> ("bite") when she sees the dogs
	DESTINATION-MOTION	2	Child says <i>nek</i> ("neck") when she asks her mother to put beads around her neck
Category and member(s)	MEMBER/INDIVIDUAL OF THE CATEGORY—CATEGORY	56	Child uses their dog's name (<i>Trixie</i>) to refer to all large brown dogs
Category and property	SALIENT/DEFINING PROPERTY-CATEGORY	63	Child calls a watch a <i>tiek-tok</i> ("tick-tock")
Event	ACT-COMPLEX ACT/SUB- EVENT-WHOLE EVENT	11	Child says baai > braai ("barbecue") when a fire is being lit
Containment	CONTENT-CONTAINER	8	Child says <i>te</i> > <i>tee</i> ("tea") when he sees his bottle
Location	OCCUPANT-LOCALITY/ INHABITANTS-PLACE	7	Child says <i>ouma Nienie</i> ("grandma Nienie") when they drive past her house
Possession	POSSESSOR-POSSESSION	5	Child says <i>mamma</i> ("mommy") to indicate that something

Table 2. Types of metonymic relations identified in the data set

was identified in three utterances in the data, indicating that it is not a very active categorisation mechanism at this stage. These three examples are:

(1)	nnna > eina ("ouch")	Points to the stove top that is switched on
(2)	nee ("no")	Points finger and says "no" when she for example
		touches the TV screen
(3)	nee ("no")	Says "no" and points with his finger when he did
		something wrong

These examples illustrate how the children draw conceptual connections between the cause and effect of certain processes. In (1) the child knows that touching the stove top (CAUSE – even though in this case she has not touched the stove top) will lead to being burned (EFFECT) and that will cause pain, therefore the effect is lexically expressed through the Afrikaans equivalent of *ouch*. In examples (2) and (3) the children made a conceptual connection between when s/he does something wrong or something s/he is not supposed to do (CAUSE) and then having an adult or someone else say *nee* ("no") to them (EFFECT). In all these utterances with the

^aAll these metonymic relations are also reversible, e.g., in some cases the cause may be used as source expression to refer to the effect as target expression, the act to refer to the object, etc.

underlying CAUSE-EFFECT metonymic relation, the EFFECT is the expressed source, and the CAUSE is referred to.

4.2. Acts and major participants/agents

4.2.1. OBJECT-ACT

According to Norrick (1981, p. 48), the OBJECT-ACT principle is a perceived contiguity relation and describes for instance the relations between a *nail* and an act of *hammering*, or a *book* and an act of *writing*. Of the utterances in the data set, 25 were classified as OBJECT-ACT. Most of these utterances' communicative function is one of the following: (1) The child wants to or is doing a specific act with an object; (2) The child is commenting on an act in which the object is involved in or (3) The child wants someone else to do a specific act with an object. Example (4) illustrates a child expressing the need to do a certain act with an object.

(4) bou ('build') Points to a puzzle

In example (5) a child comments on the certain act in which the object is involved in, i.e., a fan (OBJECT) that turns (ACT).

(5) dlaai > draai ("turning") Points to a fan

Example (6) shows how a child wants someone else to do a specific act with an object.

(6) *toen > skoen* ("shoe") When wanting one of the family members to put on their shoes

In 13 utterances, the OBJECT is the vehicle that provides access to the ACT as target and in 12 utterances vice versa. As these frequencies regarding vehicle and target are so close, it cannot be determined whether the object or the act is more salient for these children at this stage.

4.2.2. INSTRUMENT-ACT

Similar to acts that "stand for the class of their objects, they [can also] serve as signs of their instruments", such as *pens* and *writing* and *cups* and *drinking* (Norrick, 1981, p. 50). In a total of 21 compelled metonymic utterances, a relation between an instrument and the act with which it is associated can be observed. Although the metonymic relations of INSTRUMENT-ACT and OBJECT-ACT are not easily differentiated, especially in child language, the former differs from the latter by involving a specific instrument that is crucial in the execution of the action. Therefore, when the child specifically referred to an instrument that needs to be used for a certain act, or used the lexical item for the act to refer to the instrument, it was classified as INSTRUMENT-ACT:

- (7) ny > sny ("cut") When the child sees a knife
- (8) bapen > pen ("pen") When the child wants to write/draw

In eight of these cases, the ACT was used as the vehicle to access the instrument as target and in 13 cases the instrument was used as the vehicle. Determining whether the act or instrument is the preferred lexical item used by these children is therefore not possible.

4.2.3. AGENT-ACT

This metonymic relation refers to the conceptual association between an act and the agent responsible for the act, such as a *baker* and *baking* (Norrick, 1981, p. 51). There are six instances in the data set where a metonymic relation between an agent and an act can be identified. Two examples are provided below.

- (9) *byt* ("bite") Points to the dogs and says "bite"
- (10) vieg > vlieg ("fly") Points to a bird

These examples also correspond with the metonymic relation of SALIENT PROPERTY—CATEGORY (see Section 4.4.1) because it refers to a characteristic of respectively dogs and birds, but in these instances the lexical items are used to refer to these agents' specific acts. In four cases, the ACTS are employed as the vehicle and in two cases the AGENTS are employed as the vehicle providing mental access to the target. As there are few examples of AGENT—ACT it is difficult to determine which "side" of the conceptual relation is possibly favoured by the children.

4.2.4. DESTINATION-MOTION

The DESTINATION—MOTION metonymic relation does not appear explicitly in Norrick's index but Radden and Kövecses (1999, p. 37) include it under the *Action ICM*. The example that they provide is *to porch the newspaper*. Two possible utterances in which this type of metonymic relation may be present were identified:

- (11) *nek* ("neck") When the child sees the string of beads around her mother's neck and asks that it be put around her (the child's) neck
- (12) $n\dot{e} > nek$ ("neck") When the child wants to put the stethoscope around her neck

Interestingly, these two examples show how the same lexical item is used by two different children. These two utterances are not classified under INSTRUMENT-ACT OR OBJECT-ACT as they specifically refer to the DESTINATION (the vehicle) where the children wish the object should be placed, therefore also implicating a MOTION (the target) of placing an object around their necks.

4.3. Category and member(s)

4.3.1. CATEGORY-MEMBER/INDIVIDUAL OF THE CATEGORY

This metonymic relation that falls under the ICM *Category and member(s)* was taken from Radden and Kövecses' list (Radden & Kövecses, 1999, pp. 34–35) although it also corresponds with the SPECIFIC—GENERIC and PART—WHOLE relations as explained by

Norrick (1981, pp. 35–36). This type of metonymic relation was identified as second most frequent in the data set, namely 56 times. In 41 of the utterances, an individual (as a typical member and as the vehicle) of a category was extended to include all the members of that specific superordinate category (the target). Examples include the following:

- (13) pappa ("father") Often also refers to other men as pappa
- (14) *hooi* > rooi ("red") The child's lexical item for all colours

In one example, i.e., where the child said *boom* ("tree") to refer to the branches of the tree, the superordinate category was the source expression. In the other 14 utterances, a somewhat different metonymic relation was noticed, namely an individual member of the category standing in for another member of the same category. These utterances also involve an easily established relationship between category members and was therefore regarded as a subtype here and not added as an additional type of metonymic relation in the list. See the following examples in this regard:

- (15) bus ("bus") When the child sees a truck
- (16) br > broek ("pants") When the child sees a skirt

These utterances are usually categorised as children's overextensions, and this is the case here as well. However, a metonymic relation can also be identified as one category member is used as a vehicle to access another category member as target within the same conceptual domain. Children usually extend these words "to instances of other categories within the same or an adjacent conceptual domain" (Clark, 1993, p. 34), mostly on the basis of "perceptual similarity and conceptual contiguity" (Nerlich et al., 1999, p. 365).

4.4. Category and property

4.4.1. SALIENT/DEFINING PROPERTY-CATEGORY

Radden and Kövecses (1999, p. 35) explain properties may be seen either metaphorically as possessed objects (corresponding with the *Possession ICM*) or metonymically as parts of an object (corresponding with Norrick's OBJECT-ACT or AGENT-ACT metonymic relation). They further explain that:

[i]f categories are intentionally defined by a set of properties, these properties are necessarily part of the category. Categories typically evoke, and metonymically stand for, one of their defining or otherwise essential properties and, conversely, a defining or essential property may evoke, or stand for, the category it defines. (Radden & Kövecses, 1999, p. 35).

Bearing this in mind, it is not surprising that this metonymic relation was identified as most frequent in the data set (N=63) as children are fine observers of objects' salient and/or defining properties. Onomatopoeic utterances (that are very common in children's early language use – Kauschke & Hofmeister, 2002;

Laing, 2014; Perry et al., 2015, 2017) were classified as SALIENT/DEFINING PROPERTY—CATEGORY and occurred frequently. Motamedi et al. (2021) explain that onomatopoeia is particularly useful in children's early vocabulary development as it offers a link between word and sensory experience that is not present in arbitrary forms. They found that onomatopoeic forms are learnt more easily by children compared with non-iconic forms. See the following examples of onomatopoeic utterances:

- (17) brrrm-brrrm When the child sees a car, motorcycle, bicycle, etc.
- (18) moe ("moo") When the child sees a cow

Other examples of this SALIENT/DEFINING PROPERTY—CATEGORY that are not onomatopoeic are:

- (19) na > nat ("wet") When the child sees rain
- (20) wa > warm ("warm/hot") When the child touches the oven even if it is not turned on

In seven of the utterances identified as SALIENT/DEFINING PROPERTY—CATEGORY, an initial association between a salient property and a category was made but thereafter an extension of that association to that of MEMBER/INDIVIDUAL OF THE CATEGORY—CATEGORY took place. See the following examples:

- (21) bal ("ball") To refer to any round object (such as an apple, crumpled up paper, the moon, lights)
- (22) hahaaá When the child sees/hears a bird

In (21) the salient property of a ball's roundness is further extended to include any object in the conceptual domain of ROUNDNESS. In (22) the very distinctive and loud three to four note call of a hadada ibis, found in many parts of South Africa, is extended to not only refer to this specific type of bird but to all types of birds, even though birds produce different sounds. These examples also correspond with Clark's (1993, p. 34) description of words being overextended to instances of other categories within the same or an adjacent conceptual domain.

In all the utterances with this underlying metonymic relation, the salient property is used as the source expression to refer to the category as the target.

4.5. Event

4.5.1. ACT-COMPLEX ACT/SUB-EVENT-WHOLE EVENT

Norrick's (1981) ACT-COMPLEX ACT and Radden and Kövecses' (1999) SUB-EVENT-WHOLE EVENT amount to the same type of metonymic relation and were therefore combined here. Radden and Kövecses (1999, p. 32) explain that events can metaphorically be viewed as having different parts, or rather sub-events. Norrick (1981, p. 93) provides examples of the verb *cook* that includes a range of operations associated with preparing food as well as *eat* that does not only refer to chewing and swallowing. The 11 utterances identified as involving this metonymic relation do not include very complex acts, but the children do make connections between initial

or preparatory events/acts that are part of a larger set of events/acts. See two examples below:

(23) baai > braai ('barbecue') When the parents light a fire
 (24) piepie ("pee-pee") When the child sees his mother going to the bathroom

These two utterances refer to a complex set of acts/events that the children associate with each other. In (23), the child associates lighting a fire as a preparatory act with the more complex set of acts that a person performs during the barbecuing (braaiing) process and thereafter. In (24), the child associates his mother going to the bathroom with her having to use the toilet (although this is not always the reason for going to a bathroom). In all these types of utterances, the ACT or SUB-EVENT is used as vehicle to refer to the COMPLEX ACT OR WHOLE EVENT as target. This makes sense in terms of child language as it is assumed that the SUB-EVENT is more easily conceptualised than the WHOLE EVENT.

4.6. Containment

4.6.1. CONTENT-CONTAINER

The Containment ICM is salient in everyday life and very basic and well-entrenched (Radden & Kövecses, 1999, p. 41). With the CONTENT—CONTAINER metonymic relation, people are generally more interested "in the contents of a container than in the mere container so that we commonly find metonymies which target the contents via the container [...] rather than the reverse metonymic relationship" (Radden & Kövecses, 1999, p. 41). However, in all eight utterances, the children refer to the content (vehicle) of a specific container (target). Examples include the following:

(25)	te > tee ("tea")	When the child sees his bottle
(26)	neel > kaneel ("cinnamon")	When the child sees a spice bottle, even if it
		does not contain cinnamon
(27)	ei > eier ("egg")	Also says this for the shell of the egg

Example (25) illustrates the salience of a small child's (baby) bottle in his/her life and that they usually associate these containers with specific contents. Example (26) is interesting as the child first made an association between cinnamon (which in this case will be her basic level category for SPICES – Rosch et al., 1976) and its container, and then extended the content as source expression to include any container of spices (therefore leaning more towards a MEMBER/INDIVIDUAL OF THE CATEGORY—CATEGORY metonymic relation).

4.7. Location

4.7.1. LOCALITY-OCCUPANT/PLACE-INHABITANTS

Both Norrick (1981, p. 96) and Radden and Kövecses (1999, p. 41) include this metonymic relation in their indexes although Norrick refers to LOCALITY-OCCUPANT and Radden and Kövecses to PLACE-INHABITANTS. Radden and Kövecses (1999, p. 41) explain that places are often associated with people living there, and in four of the seven utterances this is the case. See (28) in which the utterance indicates a simple metonymic relation between a place and its inhabitant.

(28) Ouma Nienie When driving past the child's grandmother's house ("Grandma Nienie")

In the following two examples, an object (not a person) and the place/locality in which you will "normally" find that object are metonymically associated. These utterances are also classified under this type of metonymic relation as they do involve the *Location* ICM.

- (29) hoe > hoed ("hat") The child touches her head and says "hat"
- (30) belle > oorbelle ("earrings") Touches the mother's ears and says it even though the mother is not wearing earrings

In all these utterances, the OCCUPANT is used as the vehicle to refer to the LOCALITY as target.

4.8. Possession

4.8.1. POSSESSOR-POSSESSION

The last type of metonymic relation to be discussed here is Possessor-Possession. This metonymic relation is well-entrenched and hardly noticeable in adult language (compare expressions such as *I am parked over there* and the often cited *The ham sandwich had a side dish of salad*) (Radden & Kövecses, 1999, p. 41). Although salient in adult language, this metonymic relation was identified in only five utterances. Examples of a relation between a POSSESSOR and their POSSESSION include (31) and (32).

- (31) *mamma* ('mom') Also uses this as a form to indicate possession, e.g., when pointing to something that belongs to the mother such as the mother's clothes, chair, or cup
- (32) tein > tannie Katrein For clothes received from a friend ("aunty Katrein")

In the following example, a further extension of this relation is made by the child.

(33) *myne* ("mine") Pushes her dummy into the mother's mouth and says "mine"

In this example, the child is making an association between a possession normally belonging to her (as indicated by *mine*) and a possession belonging to someone else. She then extends the lexical item to also include something belonging to someone else (which will normally be indicated by a lexical item such as *yours* or *not mine*). In all five utterances, the POSSESSOR is the vehicle, and the POSSESSION is the target.

5. Conclusion

Norrick's (1981) and Radden and Kövecses' (1999) metonymic relations are illustrations of how people perceive and associate concepts with each other. Children are fine observers of how certain concepts and processes in their environment are connected and can identify associations from an early age. This study found that certain metonymic relations are underlying to Afrikaans-speaking children's earliest

one-word utterances. These one-word utterances are viewed here as compelled metonymic overextensions (Nerlich et al., 1999). The children are "compelled" to use such utterances to communicate the widest possible range of meanings with their limited lexicons. This connects with another study from Brink (2020) in which the same data set is analysed to identify the range of communicative intentions of the children's holophrases (one-word utterances). This is done in accordance with Tomasello's (2003) list of communicative intentions typically expressed through one-word utterances, such as requesting or indicating the existence of objects, requesting or describing the recurrence of objects or events, commenting on the location of objects and people, etc.

All the utterances described in this study have underlying illocutionary functions but the difference here is that a metonymic relation could also be identified as one of the driving forces of these utterances. This corresponds with Pérez-Hernández and Duvignau's (2020, p. 299) finding that the cognitive operations of children's language use "fulfil a more basic function, namely, that of allowing the expression of a thought or a description of reality, not necessarily an abstract one, for which the kid still lacks the precise vocabulary".

Eleven of the initial 30 proposed types of metonymic relations were identified as underlying 207 utterances in the data set (see Table 2). The four types of relations that were identified as most frequent are Salient/Defining property—Category (N=63), Category—Member/Individual of the Category (N=56), object—act (N=25) and Instrument—act (N=21). The identified types of metonymic relations in the Afrikaans data set provide a window into understanding the conceptual and cognitive underpinnings of the children's early language use.

It is possible that there may be preferred metonymic construals, or preferred routes in child language that can serve as the "default cases of metonymy". References to which "side" of the metonymic relation served as vehicle and as target were also included in the discussion. As the data set is limited, it is not possible to make any generalisations, but a few remarks are in order as this can provide further insights into children's conceptualisation processes. The preferred routes regarding the metonymic relations that were identified are the following: (1) ACT FOR COMPLEX ACT; (2) SALIENT PROPERTY FOR CATEGORY; (3) INDIVIDUAL/MEMBER FOR THE CATEGORY; (4) EFFECT FOR CAUSE; (5) CONTENT FOR CONTAINER; (6) OCCUPANT FOR LOCALITY; (7) DESTINATION FOR MOTION and (8) POSSESSOR FOR POSSESSION. With the following metonymic relations, a clear preferred route could not be established: (1) AGENT-ACT; (2) INSTRUMENT-ACT and (3) OBJECT-ACT. A conclusion that can, however, be drawn, is that in most of these cases, the metonymic vehicle is more concrete, basic, salient and related to the experiential world of the child. Therefore, as can be expected of such young children, they rely more on perceptually observable entities to make connections between various concepts and categories.

All these Afrikaans-speaking children grow up in similar households and socio-cultural contexts, but it cannot be said with certainty that these contexts specifically influence the types of metonymic relations the children draw from. A contrastive, cross-linguistic study focusing on the metonymic relations underlying children's utterances in other languages may provide further insight into this matter. However, as can be expected, there are several context-specific utterances in the data set that relate directly to the South African environment and socio-cultural context, such as the use of the lexical items *baai* ("braai"), *hahaaá* (the sound of the hadada ibis) and several utterances relating to wild animals.

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