

THE ROLE OF ANIMACY IN THAI CHILDREN'S RELATIVE CLAUSE ACQUISITION

Pattra Pindabaedya¹

¹A lecturer from department of English, faculty of education, Valaya Alongkorn Rajabhat University under the Royal

Patronage Pathum Thani Province

E-mail: pattra.pin@vru.ac.th

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บทคัดย่อ

คุณนุประโยคเป็นโครงสร้างที่มีผู้ศึกษาวิจัยอย่างกว้างขวางเนื่องจากเป็นโครงสร้างที่มีความซับซ้อนโดยเฉพาะอย่างยิ่งคุณนุประโยคแบบประรานและคุณนุประโยคแบบกรรม คุณนุประโยคไม่เพียงแต่มีความซับซ้อนทางโครงสร้างเท่านั้นแต่ยังมีความซับซ้อนทางความหมายอีกด้วยโดยเฉพาะอย่างยิ่งความมีชีวิตของคำนามหลักในคุณนุประโยคซึ่งมีบทบาทสำคัญในการรับคุณนุประโยคในตำแหน่งประรานและกรรม การวิจัยครั้งนี้จึงมุ่งศึกษาบทบาทของความมีชีวิตของคำนามหลักในการสร้างคุณนุประโยคตำแหน่งประรานและกรรมของเด็กไทยก่อนวัยเรียน ผู้วิจัยเก็บข้อมูลการทดลองจากเด็กไทยอายุระหว่าง 2-5 ปีที่อาศัยในกรุงเทพมหานครจำนวน 85 คน โดยใช้ภาพจำนวน 4 ชุดซึ่งประกอบด้วยคำนามที่มีชีวิตและไม่มีชีวิตเป็นเครื่องมือในการวิจัย

ผลการศึกษาพบว่าเด็กทุกช่วงวัยสามารถสร้างคุณนุประโยคในตำแหน่งประรานได้อย่างคล่องแคล่วกว่าคุณนุประโยคในตำแหน่งกรรม โดยเด็กสามารถสร้างคุณนุประโยคในตำแหน่งประรานได้ดีกว่าเมื่อประรานในคุณนุประโยคเป็นสิ่งที่มีชีวิตมากกว่าสิ่งที่ไม่มีชีวิต นอกจากนี้ยังพบว่าเด็กสามารถสร้างคุณนุประโยคในตำแหน่งกรรมได้อย่างคล่องแคล่วกว่าเมื่อกรรมในคุณนุประโยคเป็นสิ่งที่ไม่มีชีวิตมากกว่าสิ่งที่มีชีวิต

คำสำคัญ: การรับภาษา, คุณนุประโยค, คำนามสิ่งมีชีวิต, เด็กไทย

¹ A lecturer from department of English, faculty of education, Valaya Alongkorn Rajabhat University under the Royal Patronage Pathum Thani Province

Abstract

Relative clauses have been extensively studied in language acquisition due to their complex structures and internal syntactic properties, especially subject relative clause (SRC) and object relative clauses (ORC). Relative clauses are not only structurally complex but also semantically complex, particularly the animacy of the head noun which plays an important role in the acquisition of subject-object relative clauses. The present study explores the effects of animacy on head nouns of subject and object relative clause production in Thai children. Cross-sectional data were collected from 85 2–5-year-old children living in Bangkok. They were interviewed using a preference task consisting of four sets of pictures with animate and inanimate head nouns for eliciting SRCs and ORCs.

The experiment's overall findings show that subject relative clauses (SRCs) are less difficult to understand than object relative clauses (ORCs). Subject relative clauses with animate head nouns are easier to learn than subject relative clauses with inanimate head nouns. Object relative clauses with inanimate head nouns are easier to understand than object relative clauses with animate head nouns.

Keywords: Language acquisition, Relative clauses, Animacy, Thai children

Background of the Study

Relative clauses are clauses that provide information to identify a specific participant when a noun phrase alone is insufficient. Researchers have studied the acquisition of relative clauses across languages over the last three decades (Diessel and Tomasello, 2005). The majority of these investigations focus on two syntactic aspects (Sheldon, 1974; de Villiers et al., 1979; Goodluck and Tavakolian, 1982): the syntactic function of the head noun in the relative clause as shown in example 1 and the syntactic function of the gap relativized within the relative clause as shown in example 2.

- | | | |
|-----------|--------------------------------------|-------------------------------|
| Example 1 | The dog that <u>_</u> chases the cat | (Subject relative clause/SRC) |
| | The cat that the dog chases <u>_</u> | (Object relative clause/ORC) |

In Example 1, 'The dog that chases the cat' is a subject relative clause because the head noun is relativized and appears as a gap in the subject position. The noun phrase 'The cat that the dog chases' is an object relative clause because the head noun is relativized and appears as a gap in the object position.

- Example 2 (1) *The horse that* pushes the goat stands on the lion.
(Subject-Subject/SS)

(2) *The cow that* the sheep pushed stands on the kangaroo.
(Subject-Object/SO)

(3) The cow pushes *the kangaroo* that jumped over the goat.
(Object-Subject/OS)

(4) The kangaroo stands on *the pig* that the sheep pushed __.
(Object-Object/OO) (Tavakolian, 1977)

In Example 2, the study focuses on the gapped or relativized element within the relative clause, which serves four distinct types of relative clauses, namely, SS, SO, OS, and OO.

Relative clauses are both structurally and semantically complex. Several studies have discovered the effect of semantic properties of relative clause constructions, with the animacy of the head noun playing an important role in the acquisition of subject-object relative clauses (Goodluck and Tavakolian, 1982).

The head of a relative clause is normally the topic of the relative clause because the RC is a statement about the head; therefore, subject relative clauses attached to animate

head nouns are preferred (Mak et al., 2006). This investigation is also supported by Diessel (2009), who claims that animate head nouns are highly plausible for agents and are highly likely to result in subject relative clauses. For the point of inanimate head nouns attached to relative clauses, which are less agentive referents, they tend to be non-subject and more likely to result in the head of object relative clauses.

In Thailand, research on children's language acquisition is currently very limited. Few studies have been conducted on children's acquisition of classifiers and relative clauses (Sangkharam and Indrambarya, 2018; Pindabaedya, 2018; Pindabaedya and Indrambarya, 2018). It is crucial to investigate the children's language acquisition, particularly relative clause (RC), one of the most complex structures across languages and an indicator that can reveal children's language development and thoughts. The researcher would like to investigate the production of relative clauses by Thai children as well as the effects of animacy on head nouns in subject and object relative clauses in this paper. Based on previous research, the researcher expected that head nouns attached to relative clauses would affect children's language acquisition. The study's findings may help us understand more about the obstacles to their language development and supports them in promoting their language development.

Objective of the study

The present study explores the effects of animacy on head nouns of subject and object relative clause production in Thai children.

Methodology

The methodology is divided into four sections in this paper: participants, instruments, data collection, and data analysis.

1) Participants

This study included 85 pre-school children aged 2 to 5. The children were 43 male and 42 female kindergarten students. They are all from Bangkok and speak the central Thai dialect as their first language. Parents must grant permission for all students to participate in this study.

2) Instruments

To investigate the role of animacy in children's relative clause acquisition, the experimental materials used a 2X2 design that crossed the animacy factors (animate, inanimate subjects, and animate, inanimate objects). As a result, four sets of pictures were used to elicit subject relative clauses (SRCs) and object relative clauses (ORCs). Each set consists of four images; each image includes one agent (subject) and one patient (object), both animate and inanimate, as shown in the tables below.

Agent (Subject)	Patient (Object)	Pictures (Focus on subject)		
<u>Animate</u>	<u>Animate</u>	Set 1	<u>The girl</u> hugs <u>her dad</u> .	<u>The girl</u> hugs <u>her mom</u> .
<u>Animate</u>	<u>Inanimate</u>	Set 2	<u>The boy</u> plays <u>the ball</u> .	<u>The boy</u> plays <u>the robot</u> .
<u>Inanimate</u>	<u>Animate</u>	Set 3	<u>The fan</u> blows on <u>the cat</u> .	<u>The fan</u> blows on <u>the dog</u> .
<u>Inanimate</u>	<u>Inanimate</u>	Set 4	<u>The car</u> crashes <u>the bicycle</u> .	<u>The car</u> crashes <u>the train</u> .

Table 1: Experimental pictures for eliciting subject relative clauses (SRCs)

Agent (Subject)	Patient (Object)	Pictures (Focus on object)		
<u>Animate</u>	<u>Animate</u>	Set 1	<u>The grandfather</u> kisses <u>the boy</u> .	<u>The grandmother</u> kisses <u>the boy</u> .
<u>Animate</u>	<u>Inanimate</u>	Set 2	<u>The boy</u> has <u>the ice-cream</u> .	<u>The girl</u> has <u>the ice-cream</u> .
<u>Inanimate</u>	<u>Animate</u>	Set 3	<u>The stone</u> falls on <u>the dog</u> .	<u>The car</u> runs over <u>the dog</u> .
<u>Inanimate</u>	<u>Inanimate</u>	Set 4	<u>The train</u> crashes <u>the bicycle</u> .	<u>The bus</u> crashes <u>the bicycle</u> .

Table 2 Experimental pictures for eliciting object relative clauses (ORCs)

3) Data collection

The data was gathered from 85 children. They were interviewed using a preference task that included four sets of images with animate and inanimate head nouns. The researcher used the Thai language as the medium for questioning and answering. To collect the data, the researcher asked them a question that required them to respond with noun-modifying clauses or relative clauses focusing on modifying the subject (subject relative clauses) and object (object relative clauses), as shown in tables 3-6.

Agent (Subject)	Patient (Object)	Pictures	
Animate subject (The girls with the red arrows)	Animate object (The mother and father)		
<u>The girl</u> hugs her mother.		<u>The girl</u> hugs her father.	

Table 3: Examples of pictures for eliciting subject relative clauses (SRCs)

They were given some hints by the researcher: "There are two girls. The first girl hugs her mother, while the second girl hugs her father. Which girl do you like?" This was a preference task, so children had to respond by using relative clauses that modified the girl or the subject (subject relative clause) they like to describe, for example, "I like the girl who is hugging her mom" or "The girl who hugs her dad." In Table 4, the target responses with subject relative clauses are shown.

Agent (Subject)	Patient (Object)	Target SRCs	
Animate	Animate	Set 1	<u>The girl</u> who __ hugs her dad/mom
Animate	Inanimate	Set 2	<u>The boy</u> who __ plays the ball/robot
Inanimate	Animate	Set 3	<u>The fan</u> that __ blows on the cat/dog
Inanimate	Inanimate	Set 4	<u>The car</u> that __ crashes the bicycle/train

Table 4: Target answers of subject relative clauses (SRCs)

Agent (Subject)	Patient (Object)	Pictures	
Animate subject (The grandfather and grandmother)	Animate object (The boys with the blue arrows)		
The grandfather kisses <u>the boy</u> .		The grandmother kisses <u>the boy</u> .	

Table 5: Examples of pictures for eliciting object relative clauses (ORCs)

To elicit object relative clauses, the researcher asked them a question that required an answer with clauses modifying the object or patient of the pictures. They were told, "There are two boys. One boy kisses his grandpa and the other boy kisses his grandma. Which boy do you like?" The target answers to this question would be "I like the boy who the grandfather kisses__" or "I like the boy who the grandmother kisses__." Table 6 displays the target answers for the object relative clauses.

Agent (Subject)	Patient (Object)	Target ORCs	
Animate	Animate	Set 1	<u>The boy</u> who the grandpa/grandma is kissing__
Animate	Inanimate	Set 2	<u>The ice-cream</u> that the boy/girl is having__
Inanimate	Animate	Set 3	<u>The dog</u> that the stone falls on/the car runs on__
Inanimate	Inanimate	Set 4	<u>The bicycle</u> that the train/bus crashes__

Table 6: Target answers of object relative clauses (ORCs)

4) Data analysis

All of the children's responses were collected and analyzed in terms of the frequency of production in both subject and object relative clauses. The effect of animacy on head nouns in both subject and object relative clauses was then examined and presented as a percentage.

Results

Based on the animacy factors (animate, inanimate subjects, and animate, inanimate objects), the results are divided into 4 sections.

Part 1: Picture Set 1: Animate subject (SRCs) VS Animate object (ORCs)

According to the results of picture set 1, children produced 625 utterances, of which 157 token (25.12%) were relative clauses and 468 tokens (74.88%) were other structures, as shown in the figure below.

The production of subject relative clauses (SRCS) with animate subjects

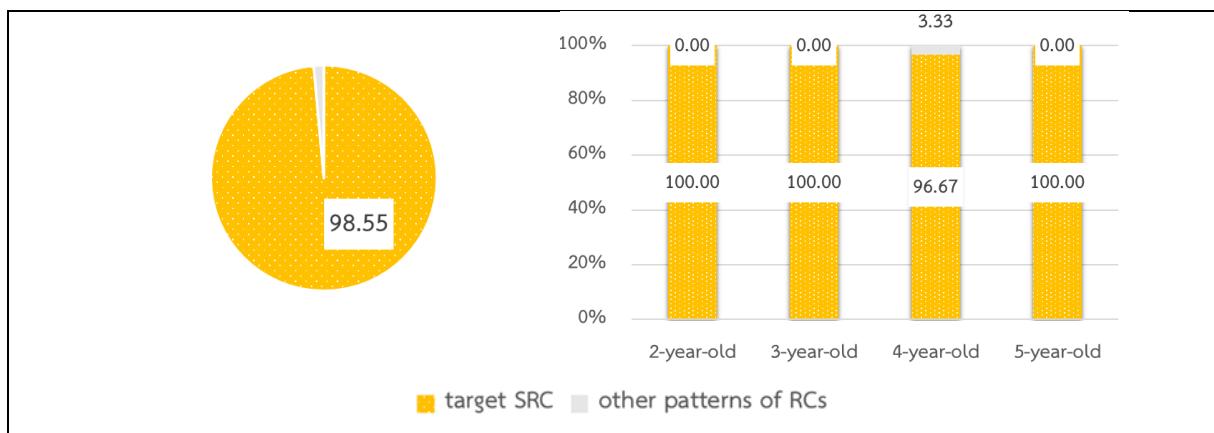


Figure 1: Children's relative clause production

The researcher asked the children, "Which girl do you like?" to elicit SRCs associated with animate subjects. As shown in Example 3, children produced 69 (1.44%) utterances, of which 68 (98.55%) were considered target answers, subject relative clauses. Furthermore, only one of the other RC patterns, the object relative clause, was found, as shown in Example 4.

Example 3	ชอบ	ผู้หญิง	ที่	ใส่	ชุด	สีแดง
	tcʰɔ:p	phu:jin	thi:	saj	tcʰút	sǐ:dæ:n
	like	girl	RC marker	wear	dress	red
"I like the girl who wears __ the red dress."						

(An SRC from a 3-year-old girl)

Example 4	ผู้หญิง	ที่	พ่อ	กอด
	phu:jin	thi:	phɔ:	kɔ:t
girl RC marker father hug				
"The girl who her father hugs __"				

(An ORC from a 3-year-old girl)

From the data, it showed that most children have no difficulty in producing SRCs with animate head nouns. However, they still made small mistakes.

The production of object relative clauses (ORCs) with animate head nouns

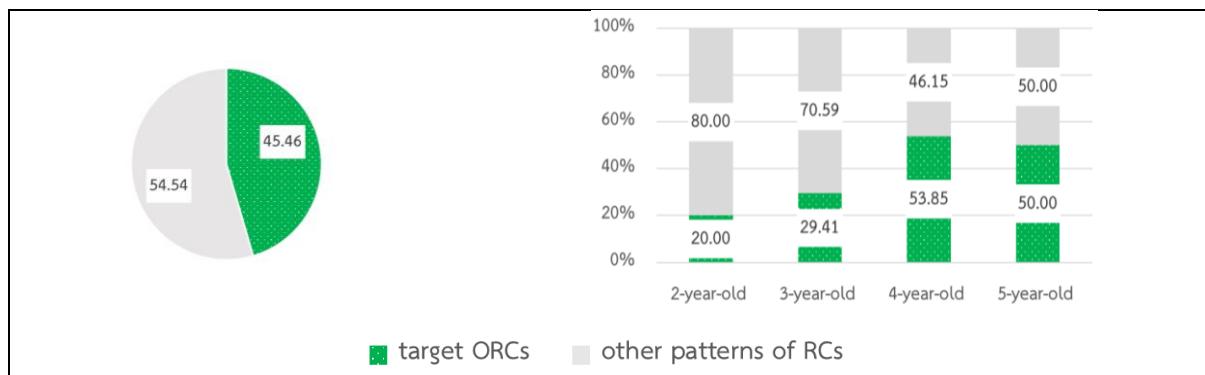


Figure 2: Children's relative clause production

From the question eliciting ORCs with animate head nouns, children produced 88 utterances which 40 (45.46%) utterances were target answers, object relative clauses, as illustrated in example 5. It showed that children had difficulty to produce object relative clauses with animate head nouns while half of children replaced subject relative clauses to avoid object relative clauses, as shown in examples 6 and 7.

Example 5 เด็กผู้ชาย ที่ คุณตา หอม
dèkphu:təh a:j thî: khunta: hɔ:m
boy RC marker grandpa kiss
“The boy that the grandpa kisses ”

Example 6	ชอบ	เด็กผู้ชาย	ที่	ใส่	เสื้อ	สีม่วง
	tɕʰ ɔ̄ːp	dèkphuːcha:j	thîː	sàj	sâ	sǐ:mûanj
	like	boy	RC marker	wear	shirt	purple

“I like the boy who wears the purple shirt.”

Example 7	เด็กผู้ชาย	ที่	กอด	คุณยาย
	dèkphû: tɔ̄h a:j	thî:	kòt	khunja:j
	boy	RC marker	hug	grandma
	“The boy who		hugs his	grandma”

Animate subject VS Animate object

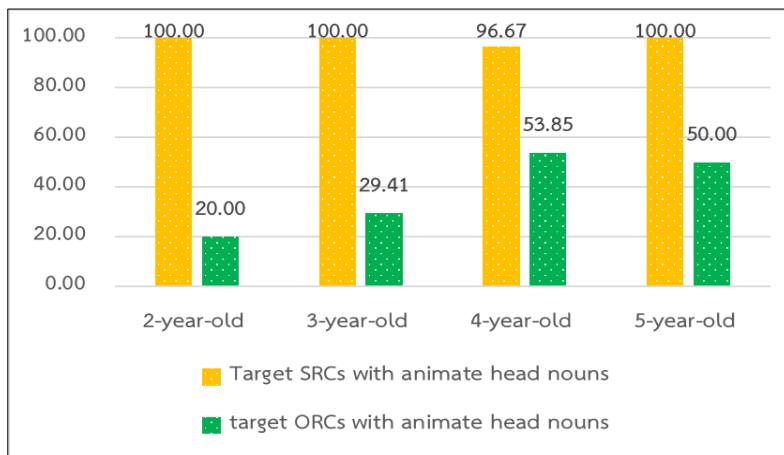


Figure 3: Comparing Target SRCs with animate head nouns and ORCs with animate head nouns

As previously stated, children of all ages had no trouble producing subject relative clauses with animate head nouns. It supports Kidd (2007)'s finding that subject relative clauses are more frequent used than object relative clauses. It can be explained that the subject is most prominent for children (Kidd, 2011:12) because it has the characteristics of being the doer of actions and primarily refers to humans (Diessel, 2009: 14-15).

Object relative clauses with animate head nouns, on the other hand, were more difficult for children. As a result, they tried to avoid this structure by employing subject relative clauses instead. This finding is consistent with Kidd's (2007) discovery that children who speak both English and German tend to convert object relatives to subject relatives when the head nouns are animate.

Set 2: Animate subject (SRCs) VS Inanimate object (ORCs)

Regarding the picture set 2 result, children made 576 utterances, of which 150 (26.04%) were relative clauses and 426 (73.96%) were other structures. As shown in the table below, children preferred to modify nouns using structures other than relative clauses.

The production of subject relative clauses (SRCs) with animate head nouns

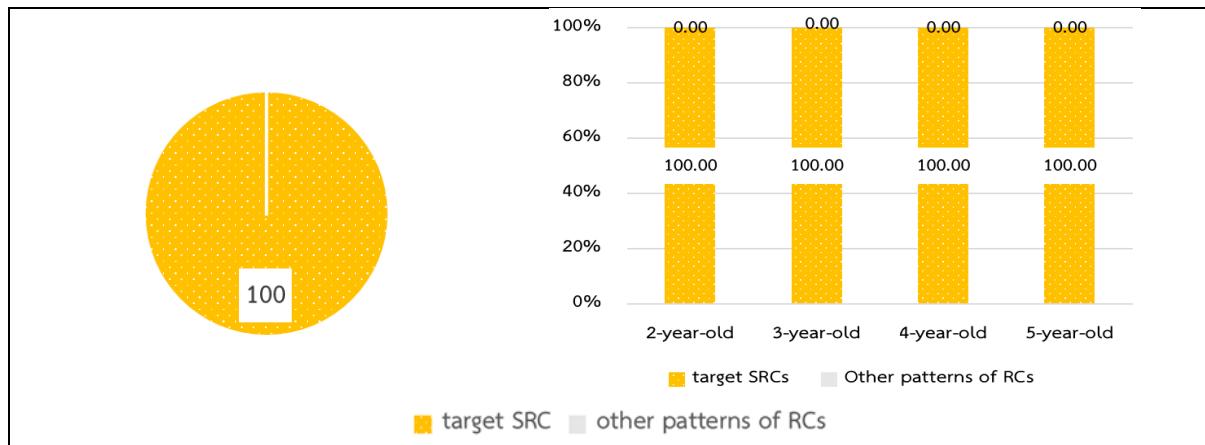


Figure 4: Children's relative clause production

To elicit SRCs attached to an animate subject, the researcher asked children, "Which boy do you like?" All of the children answered with 100% of the target subject relative clauses. As shown in Example 8, children had no trouble producing SRCs attached to animate head nouns.

Example 8	ชอบ	เด็กผู้ชาย	ที่	เล่น	ลูกบอล
	tɕʰɔ:p	dèkphu:tɕʰ a:j	thí:	lē:n	lû:k bɔ:n
like boy RC marker play ball					

"I like the boy who plays with the ball."

(An SRC from a 4-year-old girl)

The production of object relative clauses (ORCs) with inanimate head nouns

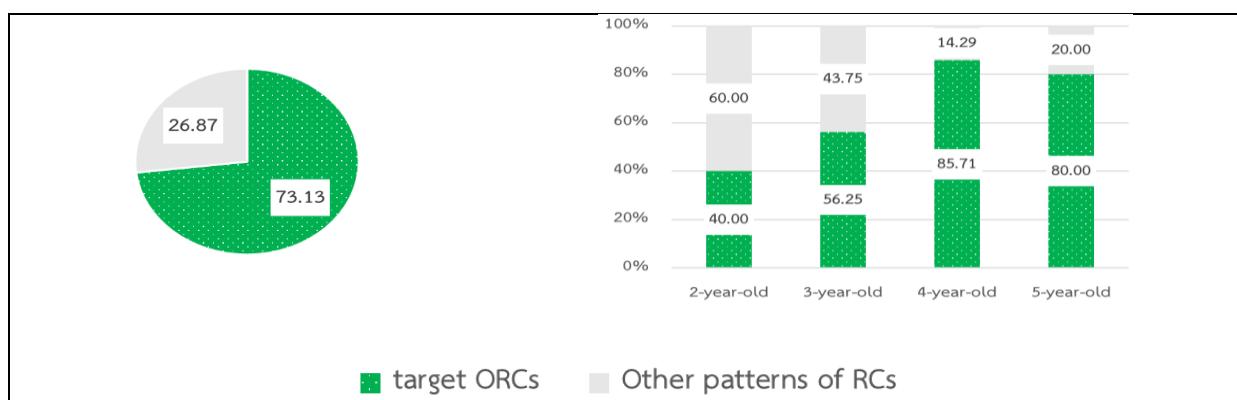


Figure 5: Children's relative clause production

According to the preference task eliciting ORCs with animate head nouns, children used 67 utterances, which 49 (73.13%) were focused or target response of objective relative clauses, as shown in example 9.

Example 9	ชอบ	ไอติม	ที่	ผู้หญิง	ทาน
	tcʰ ɔ:p	?ajtim	thî:	phû:jin	tha:n
	like	ice-cream	RC marker	girl	eat

“I like the ice-cream that the girl is having ___.”

(An ORC from a 3-year-old girl)

Some children avoided the ORCs' target answers. Instead, they changed the RC pattern from ORC to SRC, converting the object 'ice-cream' as the subject and using new verbs based on the pictures, such as 'has', as shown in Example 10.

Example 10	ชอบ	ไอติม	ที่	มี	หนึ่ง	สอง	สาม
	tcʰ ɔ:p	?ajtim	thî:	mi:	nìaŋ	rɔ:ŋ	sǎ:m
	like	ice-crea	RC marker	has	one	two	three

“I like the ice-cream that ___ has one, two, and three (scoops).”

(An SRC from a 3-year-old girl)

Animate subject VS Inanimate object

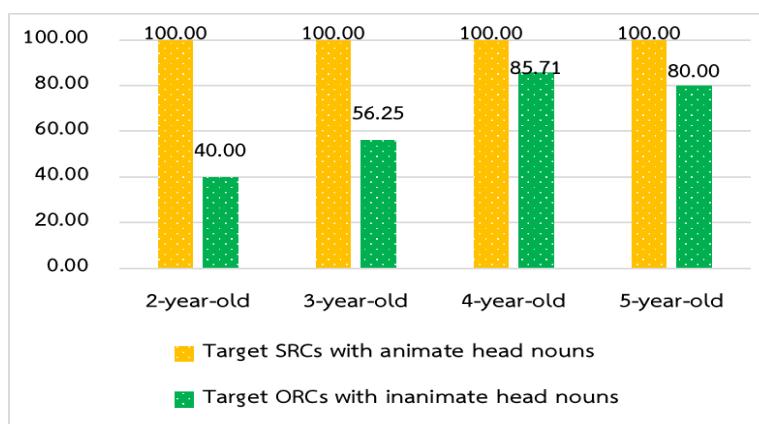


Figure 6: Comparing Target SRCs with animate head nouns and ORCs with inanimate head nouns

As previously stated, subject relative clauses with animate head nouns are not difficult for children of all ages. It can be explained that children can acquire subject relative clauses at their early ages because subject relative clauses are similar to simple sentence. (Diessel, 2000:10).

Children, on the other hand, struggle with ORC production with inanimate head nouns; however, errors were mostly found in young children aged 2–3 years old. As they grew older, their errors decreased. At this stage, 2-3-year-old children avoid using 'ice cream'

as the head noun of the object relative clause. Instead, they attempted to make "ice cream" the head noun of the subject relative clause, as in "I want the ice cream that _ is frozen; I like the ice cream that _ has the cone." This finding supports Diessel's claim that subject relative clauses are commonly used with stative verbs such as have, own, or belong (Diessel, 2000: 16).

Set 3: Inanimate subject (SRCs) VS animate object (ORCs)

According to picture set 3, children made 612 utterances, 151 (24.67%) of which were relative clauses and 461 (75.33%) were other structures.

The production of subject relative clauses (SRCs) with inanimate subjects

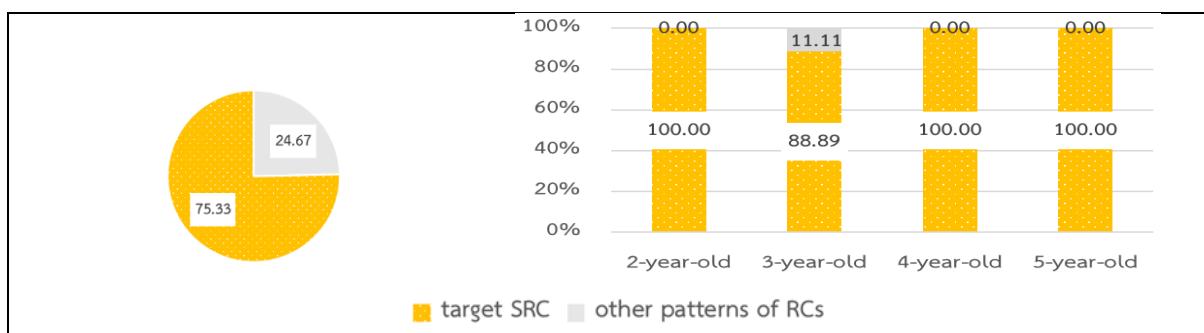


Figure 7: Children's relative clause production

To elicit SRCs with inanimate head nouns, the researcher asked children, "Which fan do you like?" As shown in Example 11, the majority of children gave target answers: subject relative clauses. Interestingly, children had no trouble producing SRCs attached to inanimate head nouns. This finding is consistent with Diessel's finding that subject relative clauses are common with both animate and inanimate head nouns (Diessel, 2000: 12).

Example 11	พัดลม	ที่	เป่า	แมว
	phátlom	thî:	pàw	mæ:w
	fan	RC marker	blow	cat
“The fan that <u>_</u> blows the cat”			(An SRC from 3-year-old boy)	

The production of object relative clauses (ORCs) with animate head nouns

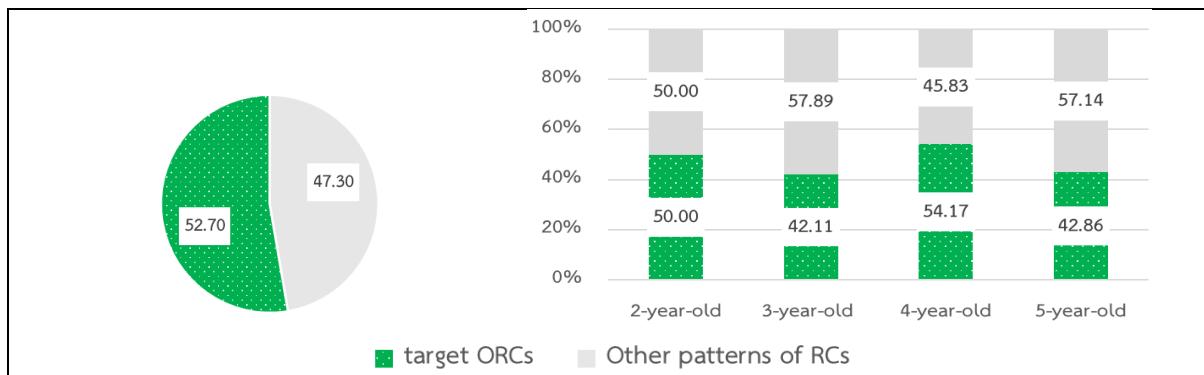


Figure 8: Children's relative clause production

According to the data, nearly half of the children can produce object relative clauses with animate head nouns, as shown in Example 12, while the other half use other structures, as shown in Example 13.

Example 12	ช่วย	หมา	ที่	รถ	เหยียบ
	tsʰuaj	mǎ:	thî:	rót	jìap
	help	dog	RC marker	car	run over

“I will help the dog that the car runs over_”

(An ORC from a 4-year-old girl)

Example 13	ช่วย	หมา	ที่	โดน	รถ	เหยียบ
	tsʰuaj	mǎ:	thî:	do:n	rót	jìap
	help	dog	RC marker	PASS	car	run over

“I will help the dog that_is run over by the car.”

(An SRC from a 5-year-old girl)

According to the data, children between the ages of 2-4 years old preferred producing object relative clauses attached by an animate head noun, as illustrated in Example 15. Surprisingly, as the children grew older, they used less object relative clauses with animate head nouns. They instead change the object relative clause 'the dog that the car runs over_ ' to the subject relative clause with the passive construction 'the dog that is run over by the car'. This explains why the use of object and subject relative clauses in this context is so similar.

Inanimate subject VS Animate object

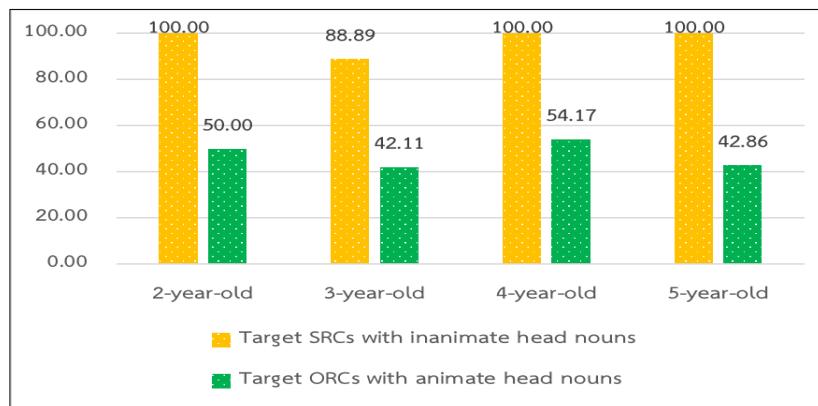


Figure 9: Comparing Target SRCs with inanimate head nouns and ORCs with animate head nouns

According to the previous findings, subject relative clauses with animate and inanimate head nouns are common for children of all ages; as a result, they had no trouble producing them. Object relative clauses, on the other hand, cause problems for children, especially with animate head nouns. In this context, the children found that head nouns modified by relative clauses functioned as sentence objects. As a result, children prefer passive construction, that requires converting object relative clauses to subject relative clauses. This strategy reduces structure complexity and makes it easier to create relative clauses (Pindabaedya, 2018:145), as illustrated in figure 10.

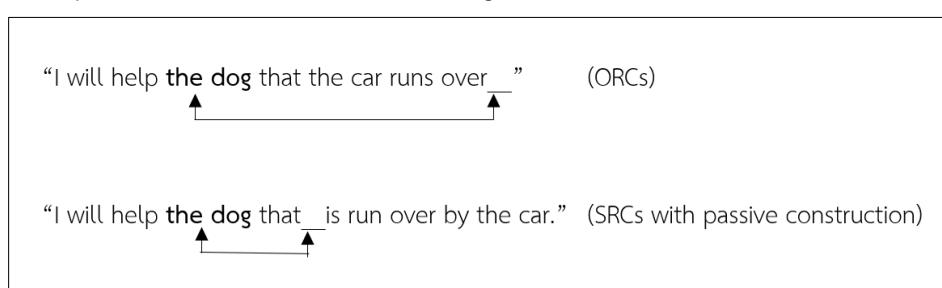


Figure 10: The use of ORCs and SRCs with passive construction

According to figure 10, the object relative clause is more difficult because the reference to head nouns 'the dog' occurred as a gap in object position. The relativized gap and the head noun are quite far apart, which has an effect on memory processing. Using the passive construction with the head noun modified by the subject relative clause is less complex and easier for memory (Diessel, 2004; Diessel, 2009; Kidd, 2011).

Set 4: Inanimate subject (SRCs) VS Inanimate object (ORCs)

According to the picture set 4, children produced 600 utterances, of which 156 (26%) were relative clauses and 444 (74%) were other structures. It revealed that children use other structures to identify nouns than relative clauses.

The production of subject relative clauses (SRCs) with inanimate head nouns

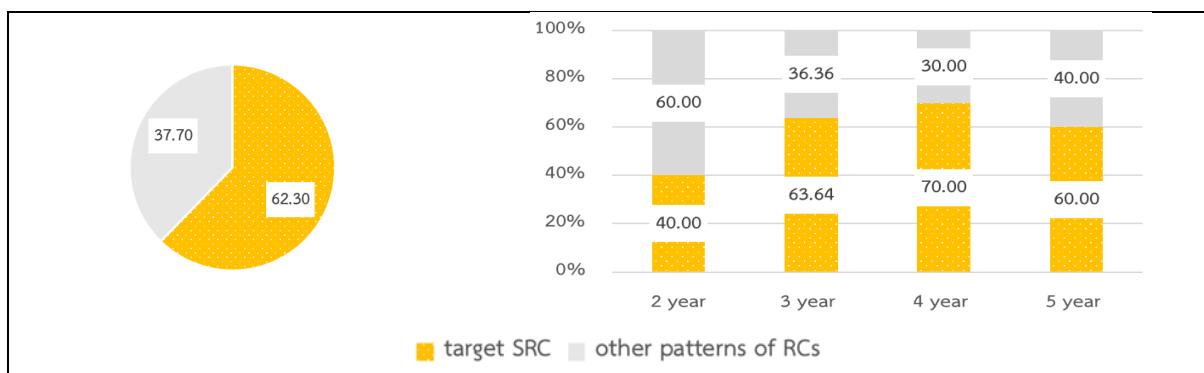


Figure 11: Children's relative clause production

To elicit SRCs, the researcher asked children about the car that they wanted to fix. More than half of them (62.3%) produced subject relative clauses to identify the car, as shown in example 14.

Example 14	ชอบ	รถเก่ง	ที่	ชน	รถไฟ
	<i>tɕʰɔ:p</i>	<i>rótkɛŋ</i>	<i>thî:</i>	<i>tɕʰ</i>	<i>on</i>
	like	car	RC marker	crash	train
“I like the car that __ crashes the train.”					

(An SRC from a 3-year-old boy)

When compared to the other sets of SRC production, this type of SRC with an inanimate head noun was the most difficult. The children were confused because the subject and object are both inanimate. Therefore, they could not clearly identify which one was the agent or subject and occasionally switched the roles of subjects and objects.

Some children avoided the subject relative clause, as illustrated in example 15. They created other relative clause patterns by changing the agent from the inanimate subject 'car' to the animate subject 'I'. This strategy is natural for children's perception because 'I' refers to humans, the prototypical subject, and 'car' refers to things, the prototypical object.

Example 15 คัน นี่ อะ คัน ที่ หนู เอ้า เข้า บ้าน
 khan nî: ?a khan thî: pron. ?ow khâ:w bâ:n
 CLS DET Particle CLS RC marker I take into house

“This one. I like this one that I can take into my house.”

(An ORC from a 3-year-old girl)

The production of object relative clauses with inanimate head nouns

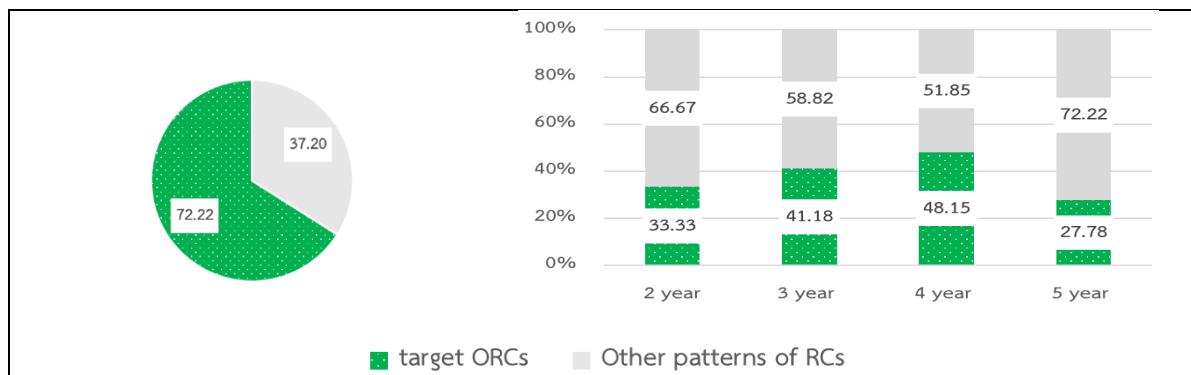


Figure 12: Children's relative clause production

From the data, most children of all ages failed to use object relative clauses with inanimate head nouns, as shown in example 16.

Example 16 สงสาร จักรยาน ที่ รถบัส ทำ
 sõngsâ:n tçàkkràja:n thî: rótbat tham
 sorry bicycle RC Marker bus do

“I feel sorry for the bicycle that the bus crashes _____.”

(An ORC from a 4-year-old girl)

As previously stated in the results of picture sets 1-3, children had difficulty producing object relative clauses due to their internal complex structure and the distance between the relativized gap and the co-reference. The children struggled with the semantic complexities of head nouns attached to object relative clauses in this context. As a result, they preferred to form subject relative clauses with passive construction, as shown in example 17.

Example 17 ช่วย จักรยาน ที่ มัน โดน รถเมล์ ชน
 chûaj tçàkkràja:n thî: man dô:n rótmej tçhon
 help bicycle RC marker pron. PASS bus crash

“I will help the bicycle that it was crashed by the bus.”

(An SRC from a 3-year-old girl)

Inanimate subject VS Inanimate object

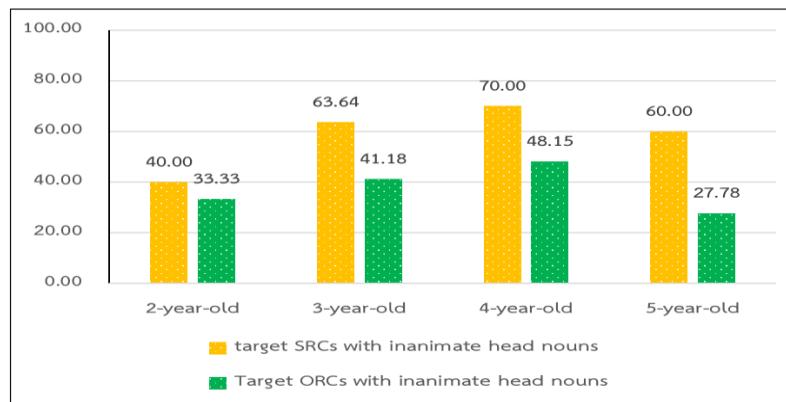


Figure 13: Comparing Target SRCs with inanimate head nouns and ORCs with inanimate head nouns

From the previous picture set 1-3, most children could do subject relative clauses with both and inanimate head nouns well. In this situation, children struggled to form subject relative clauses with inanimate head nouns. Normally, agents are animate nouns such as humans and animals and patients are inanimate nouns: things, machine, and locations (Diessel, 2000: 14). As a result, they could not clearly identify which one was the agent or subject and occasionally switched the roles of subjects and objects.

To avoid this complexity, the children used other structures to describe the head noun that they wanted to modify and changed the verb 'crash' to something else that could be found in the picture; for example, they replaced 'crash' by 'has'. Changing verbs allowed children to create new agents and patients that they were familiar with, such as "I like the train that has pink color."

Apart from the previously mentioned difficulties, the children struggled with object relative clauses. They found that using passive construction would make it easier to convert object relative clauses to subject relative clauses. This explains why they used fewer object relative clauses.

Conclusions

This study investigates the effects of animacy on head nouns of subject and object relative clause production in Thai children using a preference task that allows children to use noun modifying clauses or relative clauses. The children's responses were analyzed and presented as percentages, as shown in the chart below.

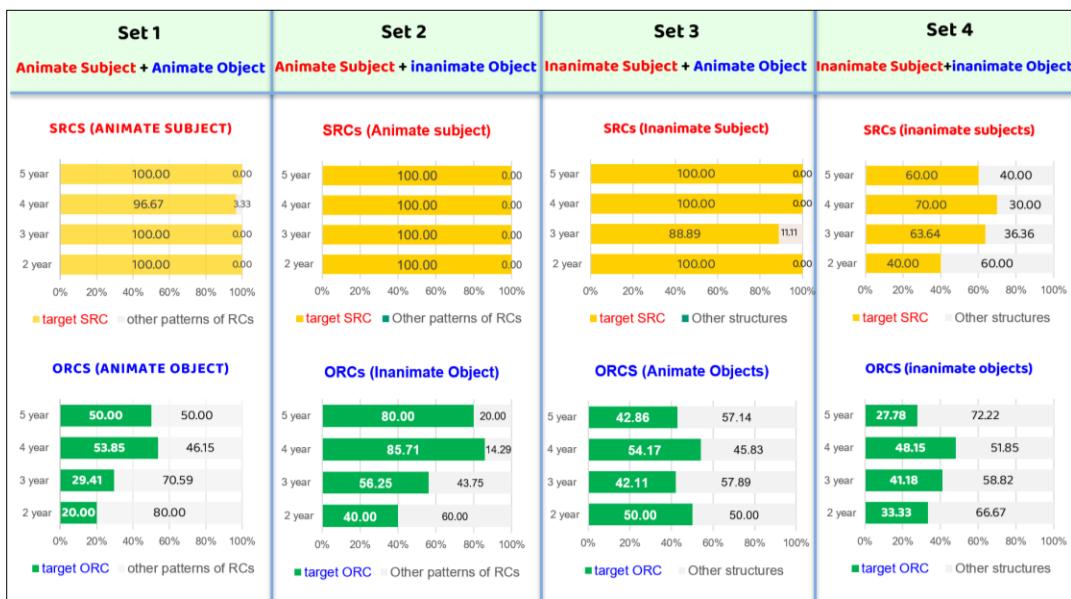


Figure 14: Overall results of SRC and ORC production with animate and inanimate head nouns

In the case of overall SRC and ORC production, children of all ages could produce subject relative clauses with both animate and inanimate head nouns. Subject relative clauses were the least problematic because they are similar to simple sentences, which children learn before producing relative clauses (Diessel, 2000: 10). This finding supports the finding that children prefer animate entities as the subject of relative clauses (Okugiri, 2018:3).

This finding also supports Diessel's (2000) claim that children perform well when the relativized subject is associated with a human reference or an animal, which are regarded as prototypical subjects.

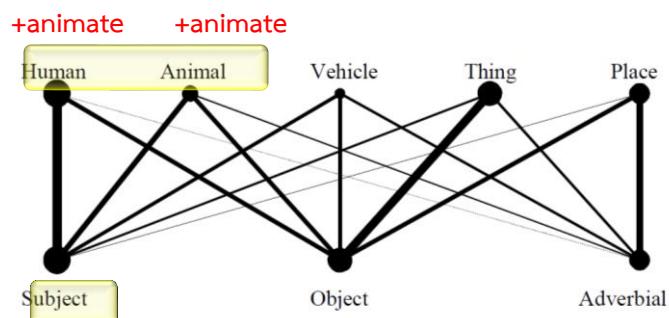


Figure 15: Prototypical subjects (Diessel, 2000: 14)

The results also show that children struggled when using subject relative clauses with inanimate head nouns. The inanimate references are concrete objects (Okugiri, 2018:1). As a

result, they were unable to identify who was the agent and who was the subject, and they occasionally switched roles as subjects and objects. It could be predicted that the inanimate head noun played an important role in SRC acquisition.

In terms of ORC production, subject relatives are more frequent than object relatives in this child's production data. Children struggled more with object-relative clauses attached to animate head nouns than with object-relative clauses attached to inanimate head nouns, confirming Diessel's (2000) claim that the objects primarily denote vehicle, thing, and place, as illustrated in the figure below.

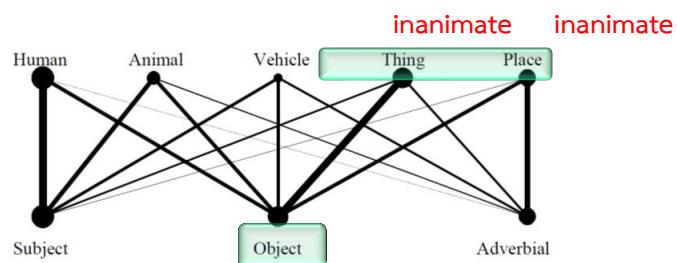


Figure 16: Prototypical objects (Diessel, 2000: 14)

The reason for this claim is that subjects primarily refer to the doers of an action because they can move or have direction on their own. As a result, animate subjects (humans and animals) have the ability to perform actions or verbs on their own, as illustrated in the image below.

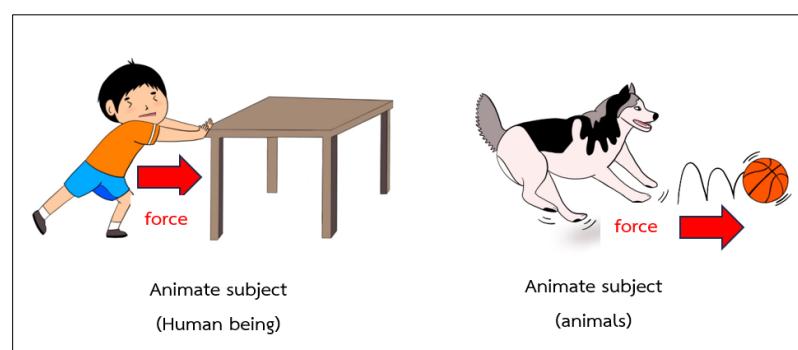


Figure 17 : self-force of animate subjects

The results, however, show that children have trouble to form subject relative clauses with inanimate head nouns. Vehicles, things, and places are non-prototypical subjects because they cannot move on their own and consequently lack the force to perform actions as doers or subjects.

Furthermore, Langaker (1991: 238) stated that typical objects must be forced by someone or something, rather than being forced by themselves. That is, inanimate objects

are easier than animate objects. This explains why children do better with inanimate object relative clause.

In sum, the overall results of SRC and ORC production with animate and inanimate head nouns can be concluded as the order of children's relative clause acquisition, as shown in the chart below.

Subject relative clauses (SRCs)	>	Object relative clauses (ORCs)
Subject relative clauses with animate head nouns	>	Object relative clauses with inanimate head nouns

Figure 18: Order of children's relative clause acquisition

This chart can help predict the order of children's relational clause acquisition. It implies that subject relative clauses (SRCs) are simpler to understand than object relative clauses (ORCs). In terms of subject relative clauses, subject relatives with animate head nouns are easier to learn than subject relatives with inanimate head nouns. When it comes to object relatives, object relative clauses with inanimate head nouns are easier than object relative clauses with animate head nouns.

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