ARTÍCULOS
UTOPÍA Y PRAXIS LATINOAMERICANA. AÑO: 24, nº EXTRA 6, 2019, pp. 243-255
REVISTA INTERNACIONAL DE FILOSOFÍA Y TEORÍA SOCIAL
CESA-FCES-UNIVERSIDAD DEL ZULIA. MARACAIBO-VENEZUELA.
ISSN 1315-5216 / ISSN-e: 2477-9555

Vowel deletion in Raimi and Najdi Arabic

Supresión de vocales en árabe Raimi y Najdi

A.A ALAHDAL
ORCID: http://orcid.org/0000-0002-4870-6091
a.alahdal@qu.edu.sa
Qassim University, Kingdom of Saudi Arabia

ABSTRACT

Dialectical variations operate at varied linguistic levels giving a dialect its unique place on the language map. In a paper, AlYaari et al. tried to consider a comparative study of the linguistics of the different dialects of Yemeni Arabic DYA. This paper looks at Raimi Yemeni Arabic, a dialect that is not considered by AlYaari et al. The paper considers two phonological phenomena studied by Alyaari et al.; namely, vowel deletion and absence of diphthongs. The paper demonstrates that RA is similar to Adeni Arabic in terms of vowel deletion, but is unique in monophthongization.

Keywords: Monophthongization, Najdi Arabic, Raimi Arabic, Syncope.

RESUMEN

Las variaciones dialécticas operan en niveles lingüísticos variados que le dan a un dialecto su lugar único en el mapa del idioma. En un artículo, AlYaari trató de considerar un estudio comparativo de la lingüística de los diferentes dialectos del árabe yemení DYA. Este artículo analiza el árabe ramio yemení, un dialecto que AlYaari no consideran. El artículo considera dos fenómenos fonológicos estudiados por Alyaari ; a saber, eliminación de vocales y ausencia de diptongos. El documento demuestra que la AR es similar al árabe Adeni en términos de eliminación de vocales, pero es única en la monoptongación.

Palabras clave: Árabe Najdi, Árabe Raimi, Monoftonización, Síncope.

Recibido: 15-09-2019 ● Aceptado: 15-11-2019

1. INTRODUCTION

Arabic is one of the most widely spoken languages in the world. It is "spoken natively by about 300 million speakers and as a second language (L2) by perhaps another 60 million" (Owens: 2013). It is “the sole or joint official language in twenty countries in a region stretching from Western Asia to North Africa" (Watson: 2002). Arabic has a standard form described extensively in *Alkitab*, written by Sibaweih in the eighth century. Since then, and for different factors, Arabic has developed so many varieties that some may not be mutually intelligible.

What is remarkable about Arabic, as observed by Owens, is that Arabic has been able to preserve its grammar system throughout the centuries. However, it should be noted here that no Arab child has Standard Arabic as his/her first language. Standard Arabic is learned in schools and colleges. An interesting field of research then is to look at the different dialects, compare their systems and see whether certain generalizations can shed light on a spectrum of the historical development of the dialects (Davis: 2016, pp. 73-90).

2. METHODS

AlYaari et al. (AlYaari et al.: 2012, pp. 430-458) try to consider a comparative study of the linguistics of the different dialects of Yemeni Arabic, as "little is known" about them – an ambitious endeavor. This paper is a step in that direction. It looks at Raimi Yemeni Arabic RA, a dialect spoken in the central part of Yemen across a series of mountainous areas, which includes Burma district and Raima governorate. The population is around 470000. The dialect has not been studied before as far as I know. In addition to comparing RA to other Yemeni dialects in terms of syncope, the paper extends its scope to look at Najdi Arabic, a variety of Arabic spoken in the Kingdom of Saudi Arabia.

3. RESULTS

In this section, I look at the sound inventory of RA and compare it to that of Standard Arabic (SA) as well as to other DYAs.

3.1 Consonants of SA and RYA

The consonant system of Arabic has, to a great extent, been preserved throughout. Only a few differences have emerged, and these differences differ from one dialect to another. In this section, I will consider the sound system of RA and see how it differs from that of SA. It will turn out that like other modern dialects of Arabic, the sound system of RA is not so different from the sound system of SA (Abu-Rabia: 2019, pp. 1-11).

Generally, SA has twenty-eight consonant sounds distributed over nine places of articulation. Table (1) below shows the distribution of the consonants. It should be noted that there is no consensus among linguists on terminology. For instance, what Watson (Watson: 2002) describes as glottal are laryngeal for Owens (Owens: 2013); and interdentals are Dentals; Watson's emphatics are 'Pharyngelized' for Owens.

Like other DYA, RA maintains almost all of the consonants. There seems to be only one difference: the post-alveolar fricative /ʒ/ has become a voiced velar plosive. Not all DYAs witness this change. For instance,

Sanaani Arabic has a voiced velar plosive /g/. But this /g/ has replaced the uvular stop[1]. It is interesting that both dialects move towards making a velar stop in terms of contrast, albeit using different strategies: RA 'backs' a coronal' while SA 'fronts' a uvular. It should be noted that the original postalveolar is maintained in SA. The velar plosive is available in most DYAs, such as Taizi and Adeni. The Table (2) presents the consonantal system in RA.

	Labial	Labio-dental	Dental	Dento-alveolar	Post-alveolar	Palatal	Velar	uvular	pharyngeal	Glottal
Plosive Emphatic	b		t, d t̪ˤ, dˤ				k	q		ʔ
Fricative Emphatic		F	Θ, ð ðˤ	s, z sˤ	ʃ, ʒ			x, ɣ	ħ, ʕ	h
Nasal	m			N						
Trill				R						
Approximant						j	w			
Lateral				L						

Table 1. The Consonant system of SA

3.2 Vowels in SA and RA

Compared to the rich consonantal system, Standard Arabic has an impoverished vowel system. SA has six vowels: three short vowels /i/, /a/ and /u/ and their long counterparts /i:/, /a:/ and /u:/. Arabic also has two diphthongs /ay/ and /aw/. The short/long vowel phonemic dichotomy is preserved in YRA.

However, RA exhibits monophthongized versions of the historical diphthongs, a fact manifested in many modern dialects of Arabic such as Cairene and Sudanese, among others (Watson: 2002). In RA, /ai/ and /aw/ have been monophthongized to long /e:/ and long /o:/ respectively.

[1] It is not clear whether the substitute of the uvular stop /q/ is accurately the velar stop /g/.

	Labial	Labio-dental	Dental	Dento-alveolar	Post-alveolar	Palatal	Velar	uvular	pharyngeal	Glottal
Plosive Emphatic	b		t, d t̪ˤ, dˤ				k	q		ʔ
Fricative Emphatic		f	Θ, ð ðˤ	s, z sˤ	ʃ		g	x, ɣ	ħ, ʕ	h
Nasal	m			n						
Trill				r						
Approximant						j	w			
Lateral				l						

Table 2. The Consonant system of RA

Badawi and Hinds (Badawi and Hinds: 1986), cited in Watson (Watson: 2002), observes that in Cairene, diphthongs still appear in certain words and concludes that monophthongized long vowels are not phonemes. In RA, by contrast, diphthongs never show up.

33 Vowel deletion/Syncope

Vowel deletion is a very common phonological phenomenon in Arabic dialects. Different vowels in different positions can be deleted (Watson 2002). In this paper, however, I will look at one case of vowel deletion – known as syncope. Syncope is the process of deletion of a short vowel in the middle syllable of a phonological word, a root with certain inflectional affixes.

3.4 Vowel deletion in Yemeni dialects of Arabic

Alyaari et al. (Alyaari et al.: 2012, pp. 430-458) investigate the phenomenon of vowel deletion in the past tense/perfective form of verbs in different dialects of Yemeni Arabic and conclude that all Yemeni dialects except Adeni displays this phenomenon. The table below adapted from Alyaari et al. (Alyaari et al.: 2012, pp. 430-458) presents the paradigm of the verb Jalas in its past tense/ perfect form in SA, Adeni and other dialects of Yemeni Arabic.

SA	Adeni	Other YDA	Gloss
jalas-a sat-3sm	Jalas	jilis	'He sat down'
Jalas-at sat.3sf	Jalas-at	Jils-at	'she sat down'
jalas-ta sat-2.s.m	jalas-t	jilis-t	'You (singular) sat down'
jalas-tum sat-2m.p.	jalas-tu	jilis-tu	'You (2nd.p.m.pl) sat down'
jalas-tunna sat-2f.p	jalas-tum	jilis-tayn	'You (2nd.p.f.pl) sat down'
jalas-na sat-1p	jalas-na	jilis-na	'We sat down'
jalas-u sat-3m.p	jalas-u	Jils-u	'they (3rd. p. m. pl) sat down'
jalas-na sat- 3f.p	jalas-u	Jils-ayn	'they (3rd. p. f . pl) sat down'

Table 3. The paradigm of the verb Jalas in YDA

Looking at the table (3) above, we observe the following facts. The Standard Arabic form of the verb is maintained in Adeni about its phonetic shape; that is, the same vowels are preserved (Taha, & Sayegh-Haddad: 2016, pp. 507-535). Two differences arise between SA and Adeni on the one hand and other DYA on the other. First, the low vowels have been raised, i.e. /ɪ/ in place of /a/[2]. The other phonological phenomenon, our main concern here is vowel deletion with verb forms inflected for 3s.f, 3pf, 3 pm., reproduced in table (4) below.

SA	AD	Other DYA	Gloss
jalas-at sat-3.s.f	jalas-at	Jil-sat	'she sat down'
jalas-u sat-3m.p	jalas-u	jils-u	'they (3rd. p. m. pl) sat down'
jalas-na sat- 3f.p	jalas-u	jils-ayn	'they (3rd. p. f . pl) sat down'

Table 4. Verbal forms showing syncope

In other verb forms, the two vowels of the standard Arabic form are maintained. Alyaari et al. report these facts but ultimately offer no explanation; they claim that there is no explanation for them. I will try to present a straightforward analysis of these facts below. Let us look at the same paradigm in Raimi, and compare it to SA and other DYA.

[2] This is an interesting phenomenon on its own. Newman (2005), reported in Embarki (2013), remarks that the vowel /a/ has a frequency that 'slightly exceeds 60%; /ɪ/ just below 25%". Interestingly, this percentage might hold for SA, but certainly not for dialects. The phonological phenomenon of fronting is very common. Consider the following.

/shariba/ ⟶ /shirib/

3.5 Vowel deletion in Raimi Yemeni Arabic (RA)

The following table (5) presents the paradigm of the verb Jalas 'to sit' in the perfective/past tense form.

SA	RA	Adeni	Other DYA	Gloss
jalas-a sat-3sm	gilis	Jalas	jilis	'He sat down'
jalas-at sat.3sf	gilis-at	jalas-at	jils-at	'she sat down'
jalas-ta sat-2.s.m	gilis-k	jalas-t	jilis-t	'You (singular) sat down'
jalas-tum sat-2m.p.	gilis-kum	jalas-tu	jilis-tu	'You (2nd.p.m.pl) sat down'
jalas-tunna sat-2f.p	gilis-kum	jalas-tum	jilis-tayn	'You (2nd.p.f.pl) sat down'
jalas-naa sat-1p	gilis-naa	jalas-na	jilis-na	'We sat down'
jalas-u sat-3m.p	gilis-u	jalas-u	jils-u	'they (3rd. p. m. pl) sat down'
jalas-na sat- 3f.p	gilis-u	jalas-u	jils-ayn	'they (3rd. p. f . pl) sat down'

Table 5. The paradigm of the verb jalas in the perfective/ past tense form across DYA

The postalveolar /j/[3] found in SA and another DYA is backed to become a velar /g/. Apart from this, RA turns out to be interesting in two respects. First, like other DYA, the central vowels are raised. In terms of vowel deletion, however, RA, like Adeni, maintains the syllable structure of SA; it does not show any vowel deletion. Thus, RA is a dialect that should be added, in addition to Adeni, to the list of dialects that do not show vowel deletion.

Unlike Cairene, Sanaani and other DYA, RA does not opt for syncope. Short vowels are never deleted. Vowels can be modified, but not deleted. The following table represents the paradigm of the verb jalas in both SA and RA.

SA	RA	Gloss
jalas-a sat-3sm	gilis	'He sat down'
jalas-at sat.3sf	gilis-at	'she sat down'
jalas-ta sat-2.s.m	gilis-k	'You (singular) sat down'
jalas-tum sat-2m.p.	gilis-kum	'You (2nd.p.m.pl) sat down'
jalas-tunna sat-2f.p	gilis-kum	'You (2nd.p.f.pl) sat down'

[3] This symbol is used for simplicity reasons, otherwise, the sound is the postalveolar fricative / ʒ / or affricate /dʒ/.

jalas-naa sat-1p	gilis-naa	'We sat down'
jalas-u sat-3m.p	gilis-u	'they (3rd. p. m. pl) sat down'
jalas-na sat- 3f.p	gilis-u	'they (3rd. p. f . pl) sat down'

Table 6. The verb *jalas* in SA and RA

Looking at the paradigm in the table (4), we observe that vowel deletion is restricted to short to the short vowels that occur word finally, as the first form above *gilis* (3sm) shows (the input is presumably Jalasa). Crucially, the short vowel in the second syllable does not delete in RA, as opposed to other DYA (except Adeni).

3.6 Analysis of Syncope in DYA

Alyaari et al. (Alyaari et al.:2012, pp. 430-458) raise the issue of vowel deletion in the different dialects of Yemeni Arabic and claim that "there is no cause/effect relationship between vowel deletion and other processes of consonants' segmentation and/or those of syllabification". However, looking closely at the facts, it turns out that a simple straightforward explanation can be offered. The main question that needs to be answered is: Why is there syncope only in some forms (namely, with certain functional markers, 3sf, 3pf, and 3 pm? Is the process driven by some principle in the computational system of syntax; that is, is it a syntax-phonology interface phenomenon? or purely phonological? Facts point to the latter option.

First, vowel deletion/syncope is a cross-linguistic phenomenon. It occurs in most dialects of Yemeni Arabic (Watson: 2002; Alyaari et al.: 2012, pp. 430-458). Broselow (Broselow: 1991, pp. 35-59) observes it in Iraqi, Sudanese, Makkan, and Syrian. It occurs in Moroccan (Broselow: 1998, pp. 261-280), Sudanese, Cairene and Muscat dialect (Hamid 1984; Bushra 1997), as reported by Alyari et al.

Along the spectrum, there are two aspects of vowel deletion that dialects show differences in (1) the type of vowel that gets deleted and (2) whether the output is a permissible structure in terms of rules of syllable structure.

In terms of the type of the vowel deleted, Watson (Watson: 2002) shows that in Sanaani, syncope may target any short vowel, i.e. / ɪ /, /u/ or /a/. In other dialects, such as Cairene, Watson observes, syncope targets only high vowels. Now, Alyaari et al. (Alyaari et al.: 2012, pp. 430-458) show that DYA, except Adeni, behave like Sanaani in that any short vowel can be deleted. consider the following.

(1) SA DYA

/sharibat/ */shirbat/* 'she drank'. (deletion of high vowel / ɪ /)

/jalasat/ */jilsat/* 'she sat down'. (deletion of low vowel /a/)

The other aspect of difference that dialects of Arabic display relates to the output of syncope: Is it a permissible structure? For instance, in Cairene, the output of syncope, as observed in Watson, must be in accord with the principles of syllable structure, whereas in Sanaani, the output could be (and is often) an impermissible structure.

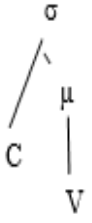
Following Borselow (Borselow: 1991, pp. 35-59), Watson (Watson: 2002) argues that syncope is "invoked to reduce the number of monomoraic syllables in the utterance and maximize the number of optimal bimoraic syllables". This seems to be on the right track. Notice that as the vowel gets deleted, the vowel in the last syllable becomes either a diphthong or a long monophthongized vowel.

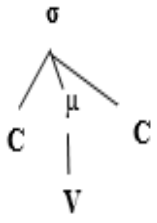
We follow Piggott's (Piggott: 1995, pp. 283-326) typology of syllable weight according to which a short vowel represents a mora and a long vowel/diphthong corresponds to two moras; that is, CV syllables are monomoraic and CVV are bimoraic.

(2) The Weight Typology (Piggott: 1995, pp. 283-326)

2.a The Monomoraic (light) Syllable

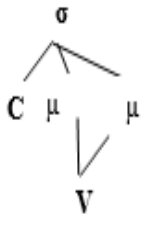
(i) (ii)

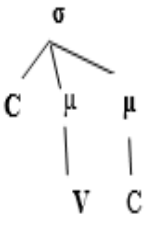




2.b The Bimoraic (heavy) Syllable

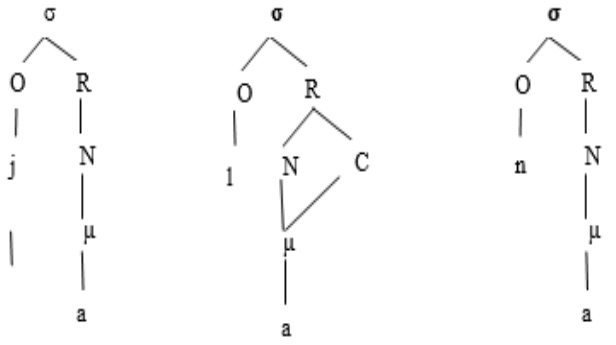
(i) (ii)



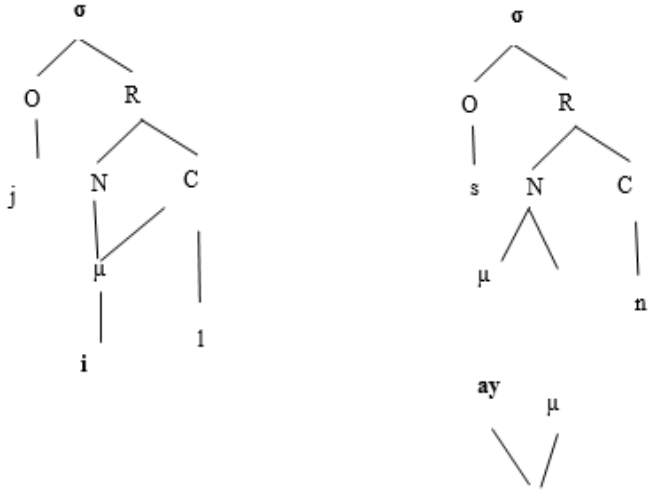


Consider the syllabification of the verb *jalasna* 'they.f. sat' in Standard Arabic according to the typology given above.

(3) Syllabification of ja.las.na in Standard Arabic.



(4) Syllabification of *Jil.sayn* in Sanaani, Ibbi, etc and Najdi Arabic.



Comparing the syllabification in (6) with that in (7) we realize that in (6) the word consists of three monomoraic syllables. In (7), however, the number of syllables is reduced by one (there are only two syllables instead of three) but morality is increased. The second syllable is bimoraic.

From a theoretical perspective, reducing the number of syllables in a word is driven by a general principle of economy - a substantial assumption underlying developments in linguistic theory. Physically, producing two syllables is simpler than producing three.

Having established that syncope is a natural phonological operation that is attested cross-linguistically, let us see why vowel deletion occurs only in some forms in DYA that Alyaari et al. consider.

It should be noted at the outset that syncope is an optional strategy that languages/dialects may choose. Thus, Standard Arabic, Adeni Arabic, and Raimi Arabic do not opt for syncope and maintain the CVC syllable structure. Other dialects of Arabic, including DYA, Cairene, on the other hand, choose to delete short vowels to increase morality. Let us look at the Table (5) again, reproduced as a Table (7) and study the forms that do not manifest syncope.

SA	RA	Adeni (AR)	Other DYA	Gloss
jalas-a sat-3sm	gilis	Jalas	Jilis	'He sat down'
jalas-at sat.3sf	gilis-at	jalas-at	jils-at	'she sat down'
jalas-ta sat-2.s.m	gilis-k	jalas-t	jilis-t	'You (singular) sat down'
jalas-tum sat-2m.p.	gilis-kum	jalas-tu	jilis-tu	'You (2nd.p.m.pl) sat down'
jalas-tunna sat-2f.p	gilis-kum	jalas-tum	jilis-tayn	'You (2nd.p.f.pl) sat down'
jalas-naa sat-1p	gilis-naa	jalas-na	jilis-na	'We sat down'
jalas-u sat-3m.p	gilis-u	jalas-u	jils-u	'they (3rd. p. m. pl) sat down'
jalas-na sat- 3f.p	gilis-u	jalas-u	jils-ayn	'they (3rd. p. f . pl) sat down'

Table 7. Forms that do not manifest syncope

Based on the table above, the following are the forms that do not show syncope.

(5)

a)	jalasa	jilis	* jils	'he sat'
b)	jalasat	jilis-t	* jils-t	'she sat'
c)	jalastum	jilistum	* jilstum	'you(m.p.) sat'
d)	jalastunna	jilistayn	* jilstayn	'you (f.pf)
e)	jilisnaa	jilisnaa	* jilsnaa	'we sat'

The forms (1b-e) are excluded because the output of syncope would violate the phonotactics of the dialect. Note that the deletion of the short vowel in the second syllable will result in a consonant cluster of three sounds, [lst] and [lsn]. In (1a), although the consonant cluster that would arise after syncope, namely [*ls*] is possible, (cf. hals 'boasting'), the form is excluded. One can conjecture that the output of syncope here violates word minimality or Park's (Park: 1997, pp. 249-259) Disyllabic requirement in morphology. Note that we are dealing with a morphologically complex word – a verb plus an agreement marker.

3.7 A note on Syncope in Najdi Arabic

Najdi Arabic is a variety of Arabic spoken in the Qassim district in Saudi Arabia. Table (8) below shows the corresponding verbal paradigm in Najdi.

SA	QSA	RYA	AYR	Other DYA	Gloss
jalas-a sat-3sm	jalas	Gilis	jalas	jilis	'He sat down'
jalas-at sat.3sf	jalas-at	gilis-at	jalas-at	jils-at	'she sat down'
jalas-ta sat-2.s.m	jalas-t	gilis-k	jalas-t	jilis-t	'You (singular) sat down'
jalas-tum sat-2m.p.	jalas-tum	gilis-kum	jalas-tu	jilis-tu	'You (2nd.p.m.pl) sat down'
jalas-tunna sat-2f.p	jalas-tin	gilis-kum	jalas-tum	jilis-tayn	'You (2nd.p.f.pl) sat down'
jalas-naa sat-1p	jalas-na	gilis-naa	jalas-na	jilis-na	'We sat down'
jalas-u sat-3m.p	jalas-u	gilis-u	jalas-u	jils-u	'they (3rd. p. m. pl) sat down'
jalas-na sat- 3f.p	jals-e:n	gilis-u	jalas-u	jils-ayn	'they (3rd. p. f . pl) sat down'

Table 8. Paradigm of *jalas* in its perfective past tens form in Najdi

As the table above shows, syncope occurs only in the third person singular form jalsayn. The other two forms in which syncope occurs in the different DYA are the 3rd person singular feminine as in jilsat and the 3rd person plural masculine, as in jilsu.

Interestingly, Najdi Arabic, a dialect spoken in rural areas, behaves more like Raimi Arabic than like Sanaani - a case related to the bedouin-urban axis raised by Watson. Watson (Watson: 2002) conjectures that "bedouin–urban axis: bedouin dialects tend to be more conservative and homogenous". This seems to be on track.

4. CONCLUSION

In this paper, certain phonological issues in Raimi Arabic have been considered. It has been argued that historical diphthongs have been monophthongized in RA as well as in most of the modern dialects of Arabic (Benmamoun, & Bassiouney: 2017). It has also been argued that almost all dialects of Yemeni Arabic use the strategy of vowel deletion/syncope to increase morality (McCarthy: 2018). The output of syncope in these dialects must be bound by the rules of the phonotactics of the language. Raimi and Adeni, on the other hand, like to go with Standard Arabic in maintaining all vowels. The paper extends its scope to Najdi, a dialect spoken in Saudi Arabia. The purpose is to reflect on the bedouin-urban dichotomy raised by Watson (Watson: 2002). It has been shown that Najdi behaves more like Raimi (a rural dialect) than like Sanaani (an urban dialect) in terms of vowel deletion. This is a sense supports Watson's claim that rural dialects are more conservative: they tend to, preserve to a maximum, the system of Standard Arabic.

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BIODATA

A.A ALAHDAL: Dr. Ameen Ahmed Alahdal is an Assistant Professor of Linguistics at the College of Sciences and Arts, Eqlat Alsoqoor, Qassim University, KSA. He has published papers in high indexed journals including Lingua and made many presentations at international conferences in India and Switzerland. With his admirable research insights, he has signed an agreement with the Deanship of Scientific Research, Qassim University for publication of some funded projects and was given precedence over a huge number of researchers whose proposals submitted for the same purpose were turned down.