The Ancient ّد in Southwest Saudi Arabia*

Munira Al-Azraqi
King Faisal University, Saudi Arabia

Abstract
Al-ّد is a unique sound in Arabic. It is believed that this sound is what makes Arabic a distinguished language. However, its description has confused the linguists for long time. Some modern linguists believe that al-ّد described by the ancient linguists is not used in the present time. On the other hand, Arabic speakers may not know that the sound they use for the classical pronunciation of al-ّد is not the one described by the ancient Arab linguists.

This study records the existence of a sound that has the features of al-ّد as described by the ancient Arab linguists. It is used among some speakers in Southwest Saudi Arabia.

Keywords
al-ّد, Arabic sounds, Arabic dialectology, lateral sounds

Arabic is known as the language of al-ّد. This attitude is borne of the belief that the al-ّد sound exists only in Arabic.1 However, the sound that has been used as al-ّد in recent times is not the one described by ancient grammarians.2

Ancient Arab grammarians described the place and manner of the production of al-ّد. The earliest mention of this sound is by al-ّHalîl b. ّAhmâd, who listed it among the Arabic sounds in his book, al-ّAyn. The eighth-century grammarian Sibawayh describes the articulation of this sound in his book, al-ّKitâb. He describes its utterance and specifies its place of articulation as “between the first part (from the back) of the side of the tongue with

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the molars next to it." He adds that the air goes out through the sides of the tongue and that the sound is uttered from the right side, whereas Ibn Ya‘īš, in his book Şarḥ al-Mufaṣṣal, adds that the sound can be uttered from either the right or left side of the mouth.

Sibawayh provides further details of the production of al-dād. He groups it with the mağhūr voiced, rihwa fricative, and muṭbaqa emphatic sounds. Thus, we might conclude that, as described in ancient Arabic books, this sound is a voiced fricative emphatic lateral sound. Given that there is no phonetic symbol in the IPA for a sound that has these features, there is no set way to transliterate this sound. Each of the phonetic symbols l, dl, lūs, d̄, d̆, ɬ, and ʎ have been used in different works to refer to this sound or laterals in general. In this article, it is intended to use the name of the sound. However, it was necessary to use the symbol d̄ within the name. This symbol was not accepted by Vollers, who actually criticized some linguists for using d̄ to transliterate this sound by this symbol.

Other philologists have studied this sound and have anticipated hypotheses about the history of the lateral sound in Semitic languages. Many Western scholars have contributed to the examination of this sound, or the lateral sounds in general. Lepsius (1861) was one of the first to discuss the place and manner of the articulation of al-dād. He and the scholars who followed him did not concentrate only on al-dād; they studied the similarity between this sound and other lateral sounds in Semitic languages. They also examined the Arabic loanwords with this lateral sound in Spanish, West African, and Southeast Asian languages.

**Background of the Change of al-dād as described in Early Arabic Books**

As mentioned above, al-dād as described by early grammarians is not the sound that has been used in recent times. The modern form is the voiced

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dental emphatic stop /ḍ/. This is the sound that is most commonly used in accurate standard speaking. It is also used when reciting the Qur’ān. Importantly, as we shall see below, it is also the sound that is taught in schools as the sound of al-dād.

This change in al-dād is not recent. Sībawayh and Ibn-Ya’īś record that different varieties of al-dād existed at that time. Some of these varieties are al-zāy al-mufahhama, al-dāl al-mufahhama or, as they describe it, al-dād al-da’īfa. They describe them as bad and incorrect forms of al-dād. No satisfactory explanation was offered by them to explain this change, except what they regard as the difficulty in producing this peculiar sound.

In the fourth century of al-Hijrah (tenth century AD), the disappearance of al-dād and its merger with al-zāʾ were noted. This merger indicates a period during which the two phonemes were used freely and interchangeably. Many books were written about this merging, or confusion, as early grammarians thought of it. These books list the words that have al-dād and others that have al-zāʾ.

It has been observed by modern linguists that when two sounds are difficult for the hearer to distinguish, they either merge or one of them changes and acquires a new feature that makes it easier to distinguish it. It seems that the sound shift in al-dād is an example of this. Cohen (1961) suggests that the ancient lateral dād merged into the existing al-zāʾ, whose articulation remained in Arabic dialects that use interdentials in the form of rural dialects, and became a new phoneme in dialects that do not use them in the form of the urban dialect.

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12 Al-Nassir, Sibawaih the phonologist, p. 46.

The Use of al-ḍād in Modern Standard Arabic

In modern spoken standard Arabic, al-ḍād has a reflex that is the voiced dental stop emphatic /ḍ/, as mentioned above. This sound is not listed among the ancient Arabic sounds and is not mentioned by Sibawayh, al-Ḥalīl b. Ahmad, or others in their times. It was first mentioned in Arabic books by Ibn al-Ḡazārī in the eighth century of al-Hīṭra (fourteenth century AD) then al-Ḥazrāqī in the ninth century of al-Hīṭra (fifteenth century AD). 14 Corriente assumes that Arab linguists accepted this new pronunciation of ḍād so that there would be two distinct sounds for the two letters. 15

In addition to this sound being used in standard spoken Arabic, it is also used in some of the dialects of Egypt, Syria, Lebanon, and among sedentary speakers in Bahrain, Christian speakers in Baghdad, and urban speakers in Jordan; for more information, see Holes (1995). 16

In the Gulf and some parts of Yemen, there is no /ḍ/ in the spoken forms, but the interdental fricative emphatic /ẓ/ is used, as a reflex of al-ḍād. 17

The Aim of the Study

The study reported herein 18 aimed to investigate a sound used in two villages in ʿAsīr Province in Southwest Saudi Arabia: al-ʿIrḍayn (17° 57’ 18.08” N, 43° 13’ 6.09” E) and al-Maḍḍa (18° 50’ 7.10” N, 43° 14’ 38.97” E). This sound is used as a reflex of al-ḍād. It has features that do not exist in any other reflexes in modern Arabic dialects. The dialect used in this area is one of Modern South Arabian dialects. Thus, the study aimed to determine whether this sound has the features of the ancient ḍād that is described in the writings of the ancient grammarians.

18 The primary findings of this study were presented in AIDA 7, Vienna, September 2006.
The informants

Forty-three persons (14 women and 29 men) participated in the study; 22 were from al-Maḍḍa and 21 from al-‘Irḍayn. They were aged from 15 to 70 years. Fourteen of them were educated (i.e. they had completed high school), 12 were semi-educated (i.e. they had received some formal education but had not attended high school), and 17 were uneducated (i.e. they had not received any formal education at all). These people participated in conversation on a variety of topics, such as farming, weather, weddings, and ‘Īd ceremonies. The conversations were tape recorded, yielding about 23 hours of tape-recorded data in all.19 See the tables below.

Table 1

<table>
<thead>
<tr>
<th>Sex</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
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<tr>
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<td></td>
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<tr>
<td>Total</td>
<td></td>
<td>43</td>
<td>100.0</td>
<td>100.0</td>
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</tbody>
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Table 2

<table>
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<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
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<td>14.0</td>
<td>14.0</td>
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<tr>
<td></td>
<td>21-30</td>
<td>7</td>
<td>16.3</td>
<td>30.2</td>
</tr>
<tr>
<td></td>
<td>31-40</td>
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<td>41-50</td>
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<td>79.1</td>
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<td></td>
<td>51-60</td>
<td>5</td>
<td>11.6</td>
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<td></td>
<td>61-70</td>
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<tr>
<td>Total</td>
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<td>43</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

19 It was not easy to persuade people to allow their conversations to be recorded. Video taping was impossible except with one informant. It was obvious that people were not ready to accept that their ḍād is different from that used by others.
Table 3

<table>
<thead>
<tr>
<th>Education level</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
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<td>Valid Educated</td>
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<td>32.6</td>
<td>32.6</td>
<td>32.6</td>
</tr>
<tr>
<td>Semi-educated</td>
<td>12</td>
<td>27.9</td>
<td>27.9</td>
<td>60.5</td>
</tr>
<tr>
<td>uneducated</td>
<td>17</td>
<td>39.5</td>
<td>39.5</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>43</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Table 4

<table>
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<tr>
<th>Place of birth</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid Al-Maḑda</td>
<td>22</td>
<td>51.2</td>
<td>51.2</td>
<td>51.2</td>
</tr>
<tr>
<td>Al-ʼIrdayn</td>
<td>21</td>
<td>48.8</td>
<td>48.8</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>43</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

The Findings

The sound that was investigated in the study retains the same features as the sound described by ancient grammarians. It is a voiced sound. The front of the tongue touches the alveo-palate. It is an emphatic sound. It is sometimes produced with one side (mostly the right one) or both sides. The side(s) of the tongue touches the molars next to them. The air goes out through the side(s) passage of the mouth. So, we may conclude that it is a voiced alveo-palatal fricative lateral emphatic sound. Below are the figures that show the spectrogram and waveform for this sound in different positions in the word.

This sound has been in recent use in the two villages studied. However, further studies are needed in order to examine the use of this sound in other spoken dialects in the surrounding areas in Southwest Saudi Arabia. It might be important to note that the use of this sound seems to vary a little according to social factors, such as age and education. Old and uneducated people use this sound as a matter of course, whereas some of the young and educated people seem to minimize using it.20

20 A sociolinguistic study is in progress.
Figure 1. The spectrogram and waveform of the *al-ḍād* as pronounced in isolation.

Figure 2. The spectrogram and waveform of the *al-ḍād* in the word *ḍīfān* “guests”.
Discussion

There is no record of the existence of a lateral (i.e. ancient) َدāد in the north of the Arabian Peninsula. However, it is recorded that this lateral sound existed in the south and southwest, in Oman and Yemen. Steiner provides a fine history of the study of the lateral sound in southern Arabic. The history starts in 1861, when Lepsoius delivered his lecture in Berlin, where he advanced the hypothesis that the Classical Arabic َدāد was an emphatic assimilated َل in early Islamic times. This hypothesis attracted little attention at the time. Fifteen years later, investigators in South Arabia discovered the use of a lateral sound in Hadrami Arabic, and Mehri and Shihri Arabic. Even several Arabic loanwords in Spanish were recognized in which the lateral َدāد is rendered as َلَد. Al-Čundī mentions that the lateral َدāد is still used in Dhufar in South Oman. Watson also mentions that usage of the lateral َدāد is attested in the dialect of Jabal Razih.

If we wish to characterize the sound precisely, it might not be sufficient to simply indicate the existence of a lateral ədəd in some dialects in the south and southwest of the Arabian Peninsula. A lateral ədəd means that the air is released from the side of the mouth. To characterize the sound precisely, it might also be necessary to investigate other features mentioned by the ancient grammarians. The tongue, for example, could touch the alveolar ridge similarly to [l] or touch the palate or other parts inside the oral cavity. We find that Sibawayh and al-Ḥalil b. ʿĀhmād list al-ədəd after [g] and [š] and that they name all three sounds as being al-ṣaḡariyya, which means they are palatal sounds. They do not list it with [l]; nor do they consider it as lying within the same group. This might indicate that the tongue inside the mouth cavity takes the palatal sound position but the air is released along the sides of the tongue. This manner of articulation is seen in inhabitants of the two villages studied.

Corriente24 concludes that the change of the sound of al-ədəd started in north Arabia, yet met strong resistance in south Arabia. This raises a significant issue. What preserved this sound from change for centuries in some parts of Arabia, while it changed in others?

Social factors could be responsible for the preservation of the ancient’s ədəd over many centuries. The two villages are small, as shown in Map 1. Until twenty years ago, al-Maḍḍa had around 2165 inhabitants, while al-‘Irḍayn had 2586.

The two villages were almost isolated. They had little communication with the outside world, in contrast to the inhabitants of the east and north of the Arabian Peninsula. There were no tarmac roads. Along with the lack in communication, trade was very limited and travel to and from the outside world was also very limited. Access to the media, in the form of television and radio, was not always possible.

Regarding education, Report (1991a) indicates that, in al-Maḍḍa, there were schools as follows: one primary school for girls and two for boys; one elementary school and one secondary school for boys; and no elementary or secondary schools for girls. Unfortunately, no information is available for the number of schools in al-‘Irḍayn at that time. For further details, see (Reports 1991a, 1991b).25 This regional remoteness causes a cultural isolation that preserves the local dialect of the speakers. This dialect has many features of Semitic languages, such as the lateralization, pharyngealization and ejective

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/k/ which is a glottalised /k/ that is produced with a closed glottis then opened after the main release, to give a ‘popping’ sound e.g. a ‘popped’ ‘k’.

It is worth mentioning here that along with the existence of the ancient sound of ḏād, a delateralization is occurring regarding this sound. Two other reflexes were found among some speakers, especially young people: (i) the voiced inter-dental fricative emphatic /ẓ/, and (ii) the voiced alveolar lateralized emphatic. This change will be studied in detail in further research, as mentioned below.

**Conclusion and Suggestions for Further Studies**

We conclude that al-ḍād, which many linguists believe is no longer used in any form of Arabic, still exists in southwest Saudi Arabia, in two villages named al-ʿIrdayn and al-Maḍa, in the Province of ʿAsīr. This sound has the same features as that described by the ancient grammarians. It is the ancient classical ḏād.

Further research is required to investigate the following: (i) whether or not this sound is used in other surrounding areas, such as Tihāma in Saudi Arabia, Yemen, and Oman; and (ii) the change that is occurring in this sound, particularly the effect of changes in social life that occurred as a result of increased communication with the outside world.
Map 1. ʿAsīr Province map illustrating the location of al-Madda and al-ʿIrdayn villages. The small map in the top left corner shows the map of Saudi Arabia including ʿAsīr Province.