Alhailawani, Mohammad & Othman, Waleed & Abdel-Ghafer, Osama. 2022. On the feature (in)deficiency of dedicated impersonal pronouns: The view from Jordanian Arabic. *Glossa: a journal of general linguistics* 7(1). pp. 1–34. DOI: https://doi.org/10.16995/glossa.9367

On the feature (in)deficiency of dedicated impersonal pronouns: The view from Jordanian Arabic

Mohammad Alhailawani, University of Petra, Amman, JO, mohammad.alhailawani@uop.edu.jo

Waleed Othman, University of Petra, Amman, JO, waleed.othman@uop.edu.jo

Osama Abdel-Ghafer, Jordan University of Science & Technology, Irbid, JO, abghafer@just.edu.jo

Research on dedicated impersonal pronouns in Germanic and Romance has shown a correlation between a pronoun's reading and its case. In particular, impersonal pronouns that are exclusively generic (e.g. English *one*) can bear any case, whereas those that can be either generic or existential (e.g. Dutch *men*) can only bear nominative case. Moreover, there is a general consensus in the literature that both types of impersonal pronouns radically lack phi-feature specification, viz. the pronouns are underspecified for person, number, and gender features in the syntax. The purpose of this paper is twofold: first to discuss the impersonal use of the pronoun *waaħad* (one) in Jordanian Arabic (JA) and its implications for the crosslinguistic typology of impersonal pronouns, and second to argue that a radical feature deficiency approach to these pronouns is inaccurate. Regarding the first point, we show that *waaħad* behaves similarly to English-type pronouns in terms of its interpretation and syntactic distribution. JA *waaħad* can only have a generic inclusive reading and can appear in multiple syntactic positions. As for the second point, we show that *waaħad* is not completely phi-defective. The JA pronoun patterns with crosslinguistically recognized impersonal pronouns by being underspecified for person. However, independent empirical evidence from agreement shows that *waaħad* is always specified for singular number and also for gender in some contexts. This novel data from JA suggest a rethinking of the radical feature deficiency approach to impersonal pronouns. Additionally, we provide evidence for the presence of a DP projection above impersonal *waaħad* that is overtly instantiated via the definite article *il-* (the). Our findings show that impersonal pronouns are not radically devoid of phi-features. Whereas impersonal pronouns share the core property of being underspecified for person, some pronouns are specified for number and also for gender in the syntax.

1 Introduction

Dedicated impersonal pronouns (impersonals henceforth) in Germanic and Romance are divided into two main groups as far as their interpretation is concerned. On the one hand, pronouns like English *one* and Frisian *men* are always generic (1a), but never existential (1b). On the other hand, pronouns like Dutch *men* and Swedish *man* can be either generic or existential (2) (Egerland 2003; Hoekstra 2010; Ackema & Neeleman 2018; Fenger 2018: among others).

(1) a. When one is in Italy, one eats pasta.
b. *One has called for you, but I don't know what it was about.
(Fenger 2018:296–297)

(2) a. Dutch
Wanneer men in Italie is, *eet men pasta.*
When IMP in Italy *is,* eat IMP pasta.
'Intended: 'When people are in Italy, they have the habit of eating pasta.'
b. *Men heeft voor je gebeld, maar ik weet niet waar het over ging*
IMP has for you called but I know not what it about went
Intended: 'Someone has called for you, but I don't know what it was about.'
(Fenger 2018:296–297)

Besides the different readings impersonals might take on, the pronouns have been shown to occupy different syntactic positions that overlap with their readings. In particular, English-type pronouns can bear any case, whereas Dutch-type pronouns can only bear nominative case (Ackema & Neeleman 2018; Fenger 2018: among others). Furthermore, many existing accounts of impersonals treat them as being defective. That is, the pronouns are underspecified for phi-features in the syntax (Egerland 2003; Hoekstra 2010; Malamud 2012; Ackema & Neeleman 2018; Fenger 2018: among others). Another issue that has been a subject of debate is the status of impersonals with respect to (in)definiteness. In the literature, impersonals are classified as either indefinite (Condoravdi 1989; Moltmann 2006; Malamud 2012), definite (Kratzer 1997; Alonso-Ovalle 2002; Hoekstra 2010; Hall 2018), or a-definite (Koenig & Mauner 1999; Zobel 2016). This paper aims to contribute to the body of research on imperosnals by discussing the impersonal use of the pronoun *waaħad* (one) in Jordanian Arabic (a Semitic language) and its implications for the crosslinguistic typology of impersonals. In Jordanian Arabic (JA henceforth), the numeral *waaħad* (one) can be used as an impersonal pronoun when preceded by the definite article *il-* (the). The pronoun is used to make statements that generalize over people. For instance, the example in (3) means that all people (including the speaker) must wake up early.[1]

[1] The Arabic data used throughout this paper are from JA, unless stated otherwise on top of each example.

(3) **(il)-waaħad laazim yiSħa bakkiir*
the-one.MS must wake-up.3MS early
Intended: 'People must wake up early.'

In this paper, we discuss the morphosyntax of impersonal *waaħad* (*imp-waaħad* henceforth) in JA, focusing on the following issues:[2] (i) the possible readings *imp-waaħad* can take on; (ii) the internal feature make-up of the pronoun; (iii) the syntactic distribution of *imp-waaħad*; and (iv) the status of *imp-waaħad* with respect to (in)definiteness. First of all, we show that *imp-waaħad* can only have a generic inclusive reading. We also discuss verbal agreement with *imp-waaħad* to identify the internal feature make-up of the pronoun. JA is a morphologically rich language in which verbs display full person-number-gender agreement with their subjects. Our discussion of agreement with *imp-waaħad* reveals that the pronoun is specified for some phi-features. More precisely, *imp-waaħad* aligns with crosslinguistically recognized impersonals by lacking person specification in the syntax. However, the JA pronoun differs from other impersonals by virtue of being always specified for singular number and also for feminine gender, given the right context. The JA facts run counter to the radical feature deficiency approach to impersonals (Egerland 2003; Hoekstra 2010; Ackema & Neeleman 2018; Fenger 2018: among others). Furthermore, we investigate the syntactic distribution of *imp-waaħad*, showing that the pronoun can appear in multiple syntactic positions. The JA data support Fenger's (2018) proposal that pronouns that are exclusively generic (e.g. English *one*) project a KP, and as such, can bear any case. We also discuss the (in)definite status of *imp-waaħad*. We argue that the JA pronoun is best analyzed as a definite (non-specific) generic DP. Based on a number of diagnostics of syntactic definiteness, we show that *imp-waaħad* projects a DP that is overtly instantiated via the definite article *il-* (the). Our findings support existing proposals that treat impersonals as being definite (Hoekstra 2010; Hall 2018: among others). Regarding the syntax of *imp-waaħad*, we adopt the structure proposed in Ackema & Neeleman (2018) for English-type impersonals and its specific implementation in Fenger (2018). All in all, the findings of this paper suggest a rethinking of the radical feature deficiency approach to impersonals. In particular, the JA data show that impersonals are not universally completely devoid of phi-features. Whereas all impersonals share the core property of being underspecified for person, some impersonals can carry number and even gender specification in the syntax.

[2] In this paper, we restrict our attention to JA dedicated impersonal *waaħad*. We do not discuss impersonal null subjects or impersonal passives. We refer the interested reader to Fassi-Fehri (2009; 2012) for a detailed discussion of both types in Modern Standard Arabic.

The remainder of this paper is structured as follows. In the following section, we provide an overview of the main properties of impersonals and contrast them with the properties of *imp-waaħad* in JA. We discuss the possible readings, agreement patterns, and syntactic distribution of impersonals. We show that the JA pronoun seems to pattern with English-type impersonals in terms of its interpretation and syntactic distribution. By contrast, we show that *imp-waaħad* differs from other impersonals by being specified for number and also for gender in some contexts. Section 3 introduces Ackema & Neeleman's (2018) theory of person. In section 4, we present our analysis of *imp-waaħad*, which draws on the analysis presented in the previous section. In section 5, we discuss the (in)definite status of *imp-waaħad*, showing that *waaħad* behaves like a definite (non-specific) generic DP. Section 6 is a brief conclusion.

2 Crosslinguistic properties of impersonals

Etymologically, impersonals across different languages are derived from words that mean 'man' or 'person' (e.g. Dutch *men*, German *man*, French *on*) or 'one' (e.g. English *one*, Spanish and Basque *uno*) (Siewierska 2011). It has been noted in the literature on impersonals that the pronouns differ in several regards, such as the readings the pronouns might take on and the possible syntactic positions they might occupy (Cinque 1988; Egerland 2003; Moltmann 2006; Hoekstra 2010; Siewierska 2011; Malamud 2012; Ackema & Neeleman 2018; Fenger 2018; Hall 2018: among others). In each of the following sub-sections, we first review the main properties of impersonals in Germanic and Romance languages and then contrast them with the properties of JA *imp-waaħad*. We focus on the possible readings, agreement patterns, and syntactic distribution of impersonals.

2.1 Impersonals: The readings

Impersonals such as Swedish *man* and English *one* can have a *generic* "quasi-universal" reading in Cinque's (1988) sense, a quasi-existential (i.e. *arbitrary* Egerland 2003) reading in episodic sentences, and a definite (i.e. *specific* Egerland 2003) reading that corresponds to first person singular 'I' (e.g. Swedish *man* Egerland, 2003) or first person plural 'we' (e.g. Italian *si* Cinque 1988).

There is language-specific variation regarding the availability of the aforementioned readings. To illustrate this point, we compare the readings available for impersonals in Swedish and English. Egerland (2003) notes that Swedish impersonal *man* can take on the three readings mentioned above. For instance, the sentence in (4a) has a generic reading where people in general have to work until the age of 65. Additionally, the same pronoun can have an arbitrary (i.e. existential) reading. In (4b), *man* refers to an unspecified group of people who worked for

two months to solve the problem. Finally, Egerland (2003) shows that Swedish *man* can also take on a specific first person singular reading (4c).[3]

(4) a. Swedish
Man mste arbeta till 65.
MAN must work until 65
'People have to work until the age of 65.'

b. *Man arbetade i tv mnader för att lösa problemet.*
MAN worked for two months to solve the problem
'Some people / they worked for two months to solve …'

b. *I gr p eftermiddagen blev man avskedad.*
yesterday afternoon was MAN fired
'Yesterday afternoon I was fired.'

(Egerland 2003:76)

English impersonal *one*, on the other hand, can only have a generic reading. The example in (5a) (adapted from Fenger (2018)) simply means that when people (including the speaker) are in Italy, they eat pasta. Unlike Swedish *man*, the existential reading is unavailable for English *one*, as seen in (5b).

(5) a. When one is in Italy, one eats pasta.
b. *One has called for you, but I don't know what it was about.

(Fenger 2018:292,297)

Several authors have argued that the generic reading in examples like (4a) and (5a) is derived via a generic operator [GEN] (Krifka etal. 1995), under the assumption that impersonals act as variables (Chierchia 1995; D'Alessandro & Alexiadou 2002; Egerland 2003; Moltmann 2006; Hoekstra 2010; Ackema & Neeleman 2018; Fenger 2018: among others). Fenger (2018:296), for instance, notes that an impersonal like English *one* in (5a) has a bound variable interpretation, meaning that all occurrences of the impersonal pronoun in the same sentence refer to the same *x* (i.e. "For any GEN_x, if *x* is in Italy, then *x* eats pasta").[4] On the other hand, the existential reading

[3] The specific reading in Italian and French gets a plural interpretation 'we'. The following examples from French illustrates this point:

(i) French
Hier soir on a été congédié
yesterday evening one has been fired
'We were fired yesterday evening.'

(Egerland 2003:84)

[4] There is a disagreement in the literature on the exact positioning of the [GEN] operator. Some argue that it is located at the clausal level (Chierchia 1995; D'Alessandro & Alexiadou 2002; Egerland 2003; Fenger 2018), whereas others argue that [GEN] is merged inside the DP (Ackema & Neeleman 2018).

in examples like (4b) is derived via the absence of any feature specification (Egerland 2003), or via the presence of an existential (i.e. arbitrary) operator on top of the pronoun (Ackema & Neeleman 2018).[5]

In addition to the generic vs. existential reading distinction, impersonals are also distinguished in terms of their inclusiveness/exclusiveness of the speaker. Hoekstra (2010) notes that impersonals in Germanic might optionally or obligatorily include the speaker. In German, for instance, impersonal *man* might optionally include the speaker (6b)–(7b). In Frisian, on the other hand, *men* obligatorily includes the speaker, as evidenced from the contrast in grammaticality between (6a) and (7a).

(6) a. Frisian
Men moat it izer smeie, at it hyt is.
one shall the iron forge, while it hot is
'Strike while the iron is hot.'

b. German
Man soll das Eisen schmieden, solang es heiß ist.
one shall the iron forge, while it hot is
'Strike while the iron is hot.'

(Hoekstra 2010:33)

(7) a. Frisian
**Men seit dat smoken net sûn is.*
one says that smoking unhealthy is
'They say that smoking is unhealthy.'

b. German
Man sagt, dass Rauchen ungesund sei.
one says that smoking unhealthy is
'They say that smoking is unhealthy.'

(Hoekstra 2010:33)

Summarizing, the literature has identified the following readings of impersonals:

(8) ***Possible readings of impersonals***:
a. **Obligatorily inclusive generic reading**: refers "quasi-universally" to a group that must include the speaker (and potentially the addressee).
b. **Optionally inclusive generic reading**: refers "quasi-universally" to a group that need not include the speaker, but can.
c. **Definite personal (i.e. specific) reading** : refers to a specific (atomic or plural) individual, in the way that a personal pronoun normally does.

[5] Additionally, D'Alessandro & Alexiadou (2002) note that an impersonal pronoun can receive an existential reading under locality with an Aspect head in Romance.

d. **Arbitrary (i.e. existential) reading**: refers "quasi-existentially" to some group/ individual (which typically excludes the speaker).

(Modified from Hall 2018:124)

Turning now to JA *imp-waaħad*, the data in (9) show that the pronoun can take on a generic inclusive reading in both SVO and VSO orders.

(9) a. ***il-waaħad*** *laazim yiSħa bakkiir*
the-one.MS must wake-up.3MS early

b. *laazim yiSħa* ***il-waaħad*** *bakkiir*
must wake-up.3MS the-one.MS early

c. **waaħad laazim yiSħa bakkiir*
the-one.MS must wake-up.3MS early
Intended: 'People must wake up early.'

In (9), *imp-waaħad* has a bound variable interpretation (Moltmann 2006). The sentence can only mean that all people (including the speaker) must wake up early. In its impersonal use, *waaħad* must bear the definite article *il-* (the), as evidenced from the ungrammaticality of (9c).

Imp-waaħad is obligatorily inclusive. Evidence for this view comes from the impossibility of having *waaħad* in statements that do not involve the speaker like (10).[6]

(10) **il-waaħad biguul innu il-tadxiin mish Siħħi*
the-one.MS says.3MS that the-smoking NEG healthy
Intended: 'They say that smoking is unhealthy.'

An arbitrary (existential) reading is unavailable for *imp-waaħad* in both SVO and VSO orders, as the ungrammaticality of (11) shows.[7]

---

[6] In JA, the corresponding grammatical example to (10) involves a silent 3rd person plural 'they' that is manifested as 3rd person plural inflection on the main verb (i):

(i) *biguuluu innu il-tadxiin mish Siħħi*
say.3MPL that the-smoking NEG healthy
Intended: 'They say that smoking is unhealthy.'

The reading available in (i) is generic exclusive, since plural number is often seen as conveying exclusiveness (D'Alessandro & Alexiadou 2002; Fassi-Fehri 2009). As mentioned earlier, in this work we only concern ourselves with overt dedicated impersonals. See Holmberg (2005; 2010) for a detailed discussion of impersonal constructions in null subject languages, and Fassi-Fehri (2009; 2012) for a discussion of the same topic in Arabic.

[7] The existential use of *waaħad* is only viable without the definite article (i).

(i) *fii* ***waaħad/waħdih*** *tawiil/tawiilih saʔal/saʔlat ʕann-ak imbariħ*
EXP one.MS/one.FS tall.MS/tall.FS asked.3MS/asked.3FS about-you yesterday
Lit: 'Someone tall asked about you yesterday.'

In (i), the use of *waaħad* is not impersonal, but rather, *waaħad* is simply an indefinite noun meaning *someone* (see Alhailawani 2018; 2022). As mentioned in section 1, in this paper we restrict our attention to the impersonal use of *waaħad*, which only takes place when *waaħad* is preceded by the definite article *il-* (the).

(11) a. **imbariħ, **il-waaħad** saʔal ʕann-ak, bas ma ħaka šuu bidduh*
yesterday, the-one.MS asked.3MS about-you, but NEG said.3MS what wants-he.3MS
Intended: 'Someone asked about you yesterday, but they did not say what they want.'

b. **imbariħ, saʔal ʕann-ak **il-waaħad**, bas ma ħaka šuu bidduh*
yesterday, asked.3MS about-you the-one.MS, but NEG said.3MS what wants-he.3MS
Intended: 'Someone asked about you yesterday, but they did not say what they want.'

Furthermore, a *specific* first person singular reading seems to be available for *imp-waaħad* in examples like (12).

(12) *il-waaħad kaan Taayiš fi Siɣar-uh*
the-one.MS was.MS reckless.MS in youth-his
Intended: 'I was reckless when I was young.'

On the face of it, the example in (12) seems to be understood as referring to the speaker alone. However, we follow Ackema & Neeleman (2018) by assuming that the specific reading of impersonals is in fact a generic one. Ackema & Neeleman (2018) question the availability of the specific reading altogether. For them, the specific reading of impersonals is a particular instance of the generic reading. More precisely, Ackema & Neeleman (2018) note that the the so-called *specific* reading is a generalization over situations, rather than individuals. Ackema & Neeleman, for instance, show that the "royal" use of English *one* seen in (13) is not in fact personal (i.e. referential).

(13) One is not amused (Ackema & Neeleman 2018:113)

According to Ackema & Neeleman (2018:114), the use of impersonals in examples like (13) "gives rise to the implication that the statement that holds of the speaker in the actual world would be true of other people if they were to find themselves in the same situation".[8]

We assume that the same implication holds in JA in examples like (12). More specifically, the sentence in (12) has a reading where (presumably) most people were reckless when they were young. The unavailability of *imp-waaħad* in episodic contexts like (14) bears out the claim that the pronoun cannot have a *specific* reading.

[8] Ackema & Neeleman (2018) extend their argument to other languages where the *specific* reading is assumed to be available for impersonals (e.g. Swedish *man* (Egerland 2003), Dutch "football *je*" (Zeijlstra 2015), and West Frisian *men* (Hoekstra 2010)). Although see Hall (2018) for an alternative view concerning impersonal *man* in Multicultural London English (MLE).

(14) *il-waaħad rayiħ ʕa-l-beit
the-one.MS going.3MS to-the-home
Intended: 'I'm going home.'

Finally, a second person reading is unavailable for *imp-waaħad* at all, as seen in (15).[9]

(15) *šuu (il)-waaħad biddu youkil?
what the-one.MS want.3MS eat.3MS
Intended: 'What do you want to eat?'

Table 1 summarizes the readings of *imp-waaħad* explored in this section:

Reading	***imp-waaħad***
Generic inclusive	✓
Existential (arbitrary)	*
Definite personal (specific)	*
Second Person	*

Table 1: Possible readings of *imp-waaħad*.

2.2 Impersonals: agreement and phi-features

It is generally accepted that impersonals are deficient, viz. the pronouns are underspecified for phi-features in the syntax (Egerland 2003; Hoekstra 2010; Ackema & Neeleman 2018; Fenger 2018). Egerland (2003:86), for instance, notes that impersonals "radically lack inherent lexical content with regard to the categories of person and number (and presumably also gender)". Egerland also notes that the only feature specification assumed for impersonals is [+human], since the pronouns can only refer to humans (also see Holmberg & Phimsawat (2015)).

A number of observations support the feature deficiency view of impersonals. First, unlike personal pronouns (Cardinaletti & Starke 1999), impersonals cannot be modified. For instance, Fenger (2018) shows that personal pronouns in Dutch and English can be modified (16a) & (17a), whereas the impersonals in both languages cannot (16b) & (17b).

(16) a. Dutch
Wij, de studenten, werken hard.
we the students work hard
'We, the students, work hard.'

[9] Generally, most dedicated impersonal pronouns do not allow a second person reading. For instance, English *one* and Dutch *men* cannot have a second person reading, but the second person pronouns *you* and *je* can (Ackema & Neeleman 2018). Hall (2018), however, shows that impersonal *man* in MLE can have a singular or plural second person interpretations.

b. **Men, de studenten, werken hard.*
IMP, the students work hard

(Fenger 2018:308)

(17) a. We, the students, work hard.
b. *One, the students, work hard.

(Fenger 2018:308)

Second, several authors have shown that impersonals uniformly trigger 3rd person singular agreement on verbs irrespective of the reading they might take on (Egerland 2003; Hoekstra 2010; Ackema & Neeleman 2018: among others). Nonetheless, impersonals in a number of languages (e.g. English, Dutch, and German) can combine with a plural reciprocal (Hoekstra 2010; Malamud 2012; Ackema & Neeleman 2018; Fenger 2018; Hall 2018). The following examples from Dutch and English illustrate both observations:[10]

(18) a. Dutch
*In dit land geef-**t men elkaar** cadeautjes met kerst.*
In this country give-s IMP each.other presents with Christmas

b. In this country, **one** give-**s each other** presents at Christmas.

(Adapted from Fenger 2018:295)

In the literature, the ability of impersonals to combine with a reciprocal has been interpreted differently. Malamud (2012) takes the ability of German impersonal *man* to combine with a reciprocal to be evidence that the pronoun is not specified for number in the syntax. For Malamud, singular agreement with German impersonal *man* is default agreement. Moreover, Hoekstra (2010) and Ackema & Neeleman (2018) assume that this ability provides evidence that impersonals are "semantically plural", viz. the pronouns trigger singular agreement in the syntax because they are underspecified for phi-features, yet they receive a plural interpretation.[11] Hall (2018), on the other hand, notes that such an ability provides evidence for number neutrality (at least for impersonal *man* in Multicultural London English (MLE)). All in all, there is a general consensus in the literature that impersonals lack person and number specification in the syntax and that 3rd person singular agreement observed with these pronouns involves default agreement (Hoekstra 2010; Malamud 2012; Ackema & Neeleman 2018; Fenger 2018; Hall 2018).

---

[10] Malamud (2012) notes that unlike other Germanic impersonals (e.g. German *man*), English impersonal *one* cannot bind a plural reciprocal (i).

(i) *?One used to say hello to each other. (Malamud 2012:11)

Given the grammaticality of (18b), it seems that the judgments are not subtle with regard to English impersonal *one* and its ability to combine with a reciprocal.

[11] Borer (2005) notes that, like mass nouns, impersonals are semantically plural but trigger syntactic singular agreement.

Finally, impersonals are often taken to be underspecified for gender. In languages where nouns are marked for gender (e.g. Italian and French), gender marking on impersonals is unavailable.[12] D'Alessandro & Alexiadou (2002), for instance, note that impersonal *si* in Italian is not specified for gender, as indicated in the translation of (19).

(19) Italian
Se si è ricchi si è molto simpatici a tutti
if si is rich-PL si is very nice-PL to all
'If one is rich, he/she is very nice for everybody.'
(D'Alessandro & Alexiadou 2002:4)

Based on the facts above, several authors adopted the view that 3rd person singular agreement observed with impersonals reflects the absence of phi-feature specification (Benveniste 1971; Corbett 2006). Thus, 3rd person singular agreement with impersonals involves default agreement (Hoekstra 2010; Malamud 2012; Ackema & Neeleman 2018; Fenger 2018: among others).[13]

In what follows, we zoom in on the the internal feature make-up of *imp-waaħad* by looking at the agreement patterns observed with the pronoun. This will enable us to determine whether *imp-waaħad* carries any person, number, or gender specification in the syntax.

From an etymological perspective, *imp-waaħad* is derived from the postnominal Arabic numeral *waaħad* (one).[14] The numeral *waaħad* inflects for gender: *waaħad* (one.MSC) is the masculine form (20a), and *waħdih* (one.FEM) is the feminine form (20b).

(20) a. *walad waaħad*
boy.MS one.MS
'One boy.'

b. *bint waħdih*
girl.FS one.FS
'One girl.'

[12] Ritter & Wiltschko (2019) claim that German impersonal *man* is genderless. As they acknowledge, however, this claim cannot be empirically motivated since nouns and predicates in German are not marked for gender. Moreover, the only way to detect gender in German is through determiners and adnominal modifiers which cannot co-occur with *man*.

[13] Although see Nevins (2007) for an alternative view where 3rd person agreement is not the default.

[14] The numeral *waaħad* (one) in Arabic has multiple functions. Alhailawani (2019) shows that *waaħad* functions as an indefinite specific marker in prenominal position, similarly to referential *this* in English (Ionin 2006) and *exad* (one) in Hebrew (Borer 2005). Also, Alhailawani (2018; 2022) shows that *waaħad* functions as a nominal proform that must be present when DP-internal ellipsis takes place with indefinites, similarly to anaphoric *one* in English (Günther 2013).

Starting with person, we look at agreement with verbal predicates to see if *imp-waaħad* carries any person specification. In JA, verbs agree with personal (referential) subject pronouns in person, number, and gender, as shown in (21)–(23).[15]

(21) a. *ana* ***baħib*** *il-ijazaat* (1st person)
I.1MS like.1MS the-vacations.FPL
'I like vacations.'

b. *iħna* ***binħib*** *il-ijazaat*
we.1PL like.1MPL the-vacations.FPL
'We like vacations.'

(22) a. *inta/intii* ***bitħib/bitħibii*** *il-ijazaat* (2nd person)
you.2MS/you.2FS like.2MS/like.2FS the-vacations.FPL
'You (SG) like vacations.'

b. *intuu/intin* ***bitħibbuu/bitħibbin*** *il-ijazaat*
you.2MPL/you.2FPL like.2MPL/like.2FPL the-vacations.FPL
'You (PL) like vacations.'

(23) a. *huu/hii* ***biħib/bitħib*** *il-ijazaat* (3rd person)
he.3MS/she.3FS like.3MS/like.3FS the-vacations.FPL
'He/she likes vacations.'

b. *humma/hinnih* ***biħibbuu/biħibbin*** *il-ijazaat*
they.3PL like.3MPL/like.3FPL the-vacations.FPL
'They like vacations.'

By contrast, the examples in (24) and (25) show that *imp-waaħad* uniformly triggers 3rd person singular masculine agreement on verbal predicates.

(24) *il-waaħad* ***biħib/*biħibbuu*** *il-ijazaat*
the-one.MS like.3MS/like.3MPL the-vacations.FPL
Intended.'People like vacations.'

(25) *il-waaħad* ***ʕaana/*ʕaanuu*** *bisabab Corona*
the-one.MS struggled.3MS/struggled.3MPL because Corona
Intended.'People struggled because of Coronavirus.'

Thus far, two observations suggest that *imp-waaħad* lacks person specification in the syntax. First, it was shown in section 2.1 that *imp-waaħad* is unable to pick a specific referent, and as such, the pronoun can only have a generic reading. Second, the data in (24) and (25) show that *imp-*

[15] Unlike 2nd and 3rd person personal pronouns, both singular and plural 1st person pronouns do not inflect for gender in JA.

waaħad triggers 3rd person singular agreement on verbal predicates. We assume that 3rd person agreement arises due to the absence of person specification (Benveniste 1971; Corbett 2006).

As for number, it is safe to say that *imp-waaħad* is morphologically singular since it is derived from the numeral *waaħad* (one). The question now to consider is whether *imp-waaħad* is specified for number in the syntax. To address this question we investigate the possibility of combining *imp-waaħad* with a plural reciprocal. As mentioned above, the ability of impersonals to combine with reciprocals has been taken to be evidence that impersonals are not specified for number in the syntax (Malamud 2012). Additionally, others assume that such an ability shows that impersonals are semantically plural (Hoekstra 2010; Ackema & Neeleman 2018), or number neutral (Hall 2018). Unlike most impersonals, *imp-waaħad* in JA cannot bind a plural reciprocal, as seen in (26).

(26) **bi-l-ʕeed il-waaħad bihanni/bihannuu baʕd*
in-the-Eid the-one.MS congratulate.3MS/congratulate.3MPL each-other
Intended: 'In Eid (an Islamic holiday), people congratulate each other.'

We take this fact to be evidence that *imp-waaħad* is syntactically specified for singular number. We argue that *imp-waaħad* is endowed with an inherent singular number feature in the syntax. Our contention here is that singular agreement observed with *imp-waaħad* does not arise due to the absence of number specification or due to number neutrality as broadly assumed for other impersonals, but rather to the presence of a singular number feature in the syntax.[16] Nonetheless, we adopt the mainstream idea that impersonals are semantically plural (Hoekstra 2010; Ackema & Neeleman 2018). That is, *imp-waaħad* functions singularly in syntactic agreement (by virtue of being inherently singular), but is semantically interpreted as referring to people in general, including the speaker, the addressee, and others.

Turning now to gender, *imp-waaħad* (which is morphologically masculine) refers to both male and female speakers. The example in (9a) repeated here as (27) is a statement that applies to people in general, including both males and females.

---

[16] Melisa Rinaldi (pers. comm.) notes that impersonal *uno* in Spanish cannot bind a plural reciprocal (i), similarly to *imp-waaħad*.

(i) Spanish
**en España, uno se dan regalos en Navidad*
in Spain, one.MS each-other give.3PL presents in Christmas
Intended: 'In Spain, people give each other presents at Christmas.'

Given this, one could entertain the idea that impersonals that are derived from the numeral *one* (e.g. English *one* and Spanish *uno*) are inherently specified as singular in the syntax. If English impersonal *one* turns out to be unable to bind a plural reciprocal as noted in Malamud (2012), then such line of reasoning would be sound. We will leave this for future work.

(27) *il-waaħad laazim yiSħa bakkiir*
the-one.MS must wake-up.3MS early
'People must wake up early.'

Moreover, the pronoun can be used by female speakers with a generic inclusive reading despite being morphologically masculine. In the right context, however, *imp-waaħad* can inflect for gender. In (28), for instance, *waħdih* (one.FEM) is specifically used to refer to women in general.[17]

(28) *il-waħdih lamma tkuun ħaamil, laazim taakul akil Siħħi*
the-one.FS when be.3FS pregnant.FS must eat.3FS food healthy
Intended: 'When one (feminine) is pregnant, she should eat healthy food.'

Depending on the speaker, the reading available in the example above could be generic inclusive or exclusive. Ideally, the reading would be speaker-exclusive when the speaker is a male or a non-pregnant female. The speaker-exclusive reading available in (28) seems to be problematic for our claim that *imp-waaħad* is always speaker-inclusive. However, the availability of such a reading is unsurprising since it is generally accepted that exceptions are possible in generic contexts (see Krifka etal., 1995) for detailed discussion of this point).

Importantly, the ability of masculine *imp-waaħad* to refer to both female and male referents suggests that the pronoun is gender neutral, since masculine is assumed to be the default gender in Arabic (Alkohlani 2016). However, the example in (28) with *waħdih* (one.FEM) suggests that a feminine gender feature is present in the syntax. Evidence for this claim comes from gender agreement on adjectival and verbal predicates. Although *imp-waaħad* cannot be modified by adnominal modifiers (e.g. adjectives) (29), the pronoun triggers masculine or feminine gender agreement on adjectival predicates in copular constructions (30).[18]

(29) a. **[il-waaħad il-kaðaab] miš lazim niθaQ fii-h*
the-one.MS the-liar.MS NEG must trust.1MPL in-him.MS
Intended: 'We should not trust liars.'

b. **[il-waħdih il-kaðaabih] miš lazim niθaQ fii-ha*
the-one.FS the-liar.FS NEG must trust.1MPL in-her.FS
Intended: 'We should not trust women who lie.'

---

[17] According to Melisa Rinaldi (pers. comm.), Spanish impersonal *uno* (one.MSC) is the default form used for both male and female referents. However, the feminine version *una* (one.FEM) is used instead in contexts like (28), as seen in (i).

(i) Spanish
*cuando **una** esta embarazada, debe comer comida saludable*
when one.FS be.3SG pregnant should eat food healthy
Intended: 'When one (feminine) is pregnant, she must eat healthy food.'

We thank Melisa Rinaldi for providing native speakers' judgments on Spanish.

[18] The predicative and attributive uses of adjectives are distinguished in Arabic via definiteness agreement. Attributive adjectives agree with the noun in definiteness since they merge DP-internally, whereas predicative adjectives do not.

(30) a. *lamma ykuun il-waaħad **kaðaab**, miš lazim niθaQ fii-h*
when be.3MS the-one.MS liar.MS, NEG must trust.1MPL in-him.MS
Intended: 'We should not trust people who lie.'

b. *lamma tkuun il-waħdih **kaðaabih**, miš lazim niθaQ fii-ha*
when be.3FS the-one.FS liar.FS, NEG must trust.1MPL in-her.FS
Intended: 'We should not trust women who lie.'

Furthermore, *imp-waaħad* triggers masculine/feminine agreement on verbs (31).

(31) a. *il-waaħad **biħib** il-mar?a il-SaadiQa*
the-one.MS love.3MS the-woman.FS the-honest.FS
Intended: 'People love honest women.'

b. *il-waħdih **bitħib** il-rajul il-SaadiQ*
the-one.FS love.3FS the-man.MS the-honest.MS
Intended: 'Women love honest men.'

Table 2 summarizes the JA facts explored in this section:

Criterion	***imp-waaħad***
Person	Ø
Gender	Optional
Morphological Number	SG
Semantic Number	PL
Agreement	3SG

Table 2: Morphosyntax and agreement patterns of *imp-waaħad*.

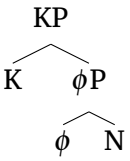
The data presented in this section seem to be problematic for the crosslinguistically held claim that impersonals are not specified for phi-features in the syntax (Egerland 2003; Hoekstra 2010; Malamud 2012; Ackema & Neeleman 2018; Fenger 2018: among others). As shown above, *imp-waaħad* is underspecified for person, similarly to other impersonals. However, the pronoun is inherently specified for singular number and also for gender only when feminine. In section 4, we propose a feature specification that captures the properties of *imp-waaħad* discussed above.

2.3 Impersonals: Syntactic distribution

A number of researchers have noted that impersonals occupy different syntactic positions (Cinque 1988; Egerland 2003; Ackema & Neeleman 2018; Fenger 2018). Fenger (2018), for instance, offers a case-based division of impersonals in Germanic. Fenger focuses on the syntactic distribution of dedicated impersonal pronouns in eight Germanic languages, and argues that there are two types

of impersonals: (i) imp-ϕ ; and (ii) imp-N. According to Fenger (2018), imp-ϕ can only take on a generic inclusive reading, and can occur in multiple syntactic position (e.g. English *one*, Frisian *men*, and Icelandic *maður*). On the other hand, imp-N can have generic and arbitrary readings, but can only occur with nominative case (e.g. Swedish *man*, German *man*, and Dutch *men*). Fenger (2018) argues that the difference between the two types boils down to case. More precisely, both types are structurally defective. However, imp-ϕ pronouns contain an underspecified Person head in their structure (Ackema & Neeleman 2018), which enables them to project a KP layer. This makes imp-ϕ eligible to bear any case. On the other hand, imp-N pronouns are simply Ns that lack any phi-feature specification (Ackema & Neeleman 2018). Consequently, imp-N pronouns are unable to project a KP layer and can only appear in the nominative form. Fenger (2018) adopts Marantz's (1991) dependent case view, and assumes that assignment of nominative case necessitates the absence of KP (Preminger 2014; Kornfilt & Preminger 2015). The two structures are schematized in (32).

(32) a. imp-ϕ (e.g. English *one*)



b. imp-N (e.g. Dutch *men*)

N

(Modified from Fenger 2018:309)

To elaborate on the division above, we compare the distribution of English *one* (i.e. an imp-ϕ) and Dutch *men* (i.e. an imp-N). Consider the examples in (1) and (2) repeated here as (33) and (34).

(33) a. When one is in Italy, one eats pasta.
b. *One has called for you, but I don't know what it was about.

(Fenger 2018:296–297)

(34) a. Dutch
Wanneer men in Italie is, eet men pasta.
When IMP in Italy is, eat imp pasta
'When one is in Italy, one eats pasta.'

b. *Man heeft voor je gebeld, maar ik weet niet waar het over ging.*
IMP has for you called but I know not what it about went
'Someone has called for you, but I don't know what it was about.'

(Fenger 2018:296–297)

Fenger (2018) notes that imp-ϕ can only take on a generic inclusive reading, as seen in (33). On the other hand, imp-N can take on both a generic and an existential reading (34). Both (33)

and (34) also show that both pronouns can occur as subjects. Additionally, imp-ϕ and imp-N can occur as derived subjects in passives and unaccusatives, since in both cases the pronouns end up receiving nominative case.[19]

Fenger (2018) shows that imp-ϕ can appear in direct object position, whereas imp-N cannot (also see Cinque 1988; Egerland 2003; Hoekstra 2010 for a similar observation).[20]

(35) a. This reminds one of the war.

b. Dutch
*Dit herinnert men aan de oorlog.
This reminds IMP of the war
'This reminds one of the war.'

(Fenger 2018:298)

The restriction on imp-N also holds in other environments where accusative case is assigned. Fenger (2018) shows that imp-N are unavailable in ECM constructions irrespective of their reading. In such constructions, the pronoun starts as an external argument in the embedded clause and ends up receiving accusative case in the main clause. On the other hand, imp-ϕ are possible in ECM only when generic, since they cannot have an existential reading at all. The examples in (36) and (37) are generic ECM sentences that involve English *one* and Dutch *men*.

(36) Context: He is a station master.
Intended: 'Therefore he always sees people leave for the holidays.'
a. *imp-ϕ , generic, ECM*.
The station master always sees **one** leave for the holidays.

(Modified from Fenger 2018:299)

(37) Context: He is a station master.
Intended: 'Therefore he always sees people leave for the holidays.'
a. Dutch
*Daarom ziet hij men altijd op vakantie gaan.
Therefore sees he IMP always on vacation go

(Modified from Fenger 2018:299)

Summing up, the presence vs. absence of KP regulates the syntactic distribution of both imp-ϕ and imp-N. Thus, it seems clear that besides the different readings impersonals can take on, the pronouns pattern differently in terms of their syntactic distribution.

---

[19] Fenger (2018) shows that all imp-N pronouns can only occur in the nominative form. However, Fenger notes that there is a two-way distinction with imp-N pronouns: (i) Swedish *man* and Dutch *men* can have a generic or an existential reading in the available positions; (ii) German, Danish and Norwegian *man* is more restricted than in Dutch and Swedish. More precisely, an existential reading is unavailable when *man* is a derived subject. In the interests of space, we do not provide Fenger's (2018) examples of imp-ϕ and imp-N as derived subjects in passives and unaccusatives. Instead, we refer the interested reader to Fenger (2018) for a detailed discussion of this issue.

[20] Fenger (2018) notes that all languages with imp-N, except for Dutch, have another pronoun that can occur in object position (e.g. *einen* in German).

As concerns the syntactic distribution of *imp-waaħad* in JA, the data in (38) show that *imp-waaħad* can appear in pre- and post verbal subject position.

(38) a. ***il-waaħad*** *ʕam yiʕaani min siyaasaat il-ħukuuma*
the-one.MS PROG struggle.3MS from policies.FPL the-government.FS
Intended: 'People are struggling due to the government's policies.'

b. *ʕam yiʕaani* ***il-waaħad*** *min siyaasaat il-ħukuuma*
PROG struggle.3MS the-one.MS from policies.FPL the-government.FS
Intended: 'People are struggling due to the government's policies.'

Furthermore, *imp-waaħad* can appear as a derived subject of passives and unaccusatives, as shown in (39).[21]

(39) a. *il-waaħad injabar yidal bi-l-beit ʕašaan Corona*
the-one.MS forced.3MS stay.3MS in-the-house.MS because Corona
Intended: 'People were forced to say at home due to Coronavirus.'

b. *bi London, il-waaħad biyiwsal ʕa-l-wagit ʔiða axad il-Qitaar*
in London, the-one.MS arrives.3MS on-the-time if take.3MS the-train.MS
Intended: 'In London, people arrive on time if they take the train.'

As for non-nominative case environments, *imp-waaħad* can appear as an internal argument (40).

(40) *Corona bitzakker il-waaħad bi-l-mout*
Corona reminds.3FS the-one.MS of-death.MS
Intended: 'Coronavirus reminds one of death.'

The same pattern holds for ECM, another construction where the pronoun is assigned accusative case. The example in (41) shows that *imp-waaħad* can appear in an ECM construction.

(41) *il-ħukuuma bidha il-waaħad yidal bi-l-beit ʕašaan Corona*
the-government.FS wants.3FS one.MS stay.3MS in-the-home.MS because Corona
Intended: 'The government wants people to stay at home due to Coronavirus.'

Finally, *imp-waaħad* can be a possessum in a possessive Construct State Construction (CSC), where the possessum is assigned genitive case (Ritter 1991; Borer 1996; Shlonsky 2004; Alhailawani 2021).

(42) *il-šarika bi-tSalliħ sayyarit il-waaħad u bitrajjiʕha*
the-company.FS fixes.3FS car.FS the-one.MS and return-it.3FS
'The company fixes one's car and returns it.'

[21] The existence of true unaccusative verbs in Modern Standard Arabic (MSA) is questionable. Al-Balushi (2011) notes that crosslinguistically recognized unaccusative verbs (e.g. *die*, *fall*, *break* etc) pattern in Arabic with unaccusative verbs with respect to some diagnostics (e.g. their unavailability in passives), and with unergative verbs with regard to other diagnostics (e.g. their availability with cognate objects). Also, the existence of A-movement in MSA is challenged in Soltan (2007) and Al-Balushi (2011). Whether these verbs are true unaccusative or not, and whether A-movement exists in MSA or not, the case assigned to the nominal is always nominative. Note that case in MSA is overtly realized on nouns, whereas in JA and other modern varieties of Arabic case is never realized on nouns.

To sum up, *imp-waaħad* can appear in positions where nominative, accusative, or genitive case can be assigned. **Table 3** summarizes the JA data discussed in this section.[22]

Position	***imp-waaħad***
Subject position	✓
Derived subject	✓
Object position	✓
ECM	✓
Construct State	✓

Table 3: Syntactic distribution of *imp-waaħad*.

2.4 Summary

Table 4 summarizes the properties of JA *imp-waaħad*:

Reading	***imp-waaħad***
Generic reading	✓
Existential reading	*
Definite personal (specific)	*
Second Person	*
Agreement and phi-features	
Person	Ø
Gender Inflection	Optional
Morphological Number	SG
Semantic Number	PL
Agreement	3SG
Position	
Subject position	✓
Derived subject	✓
Object position	✓
ECM	✓
Construct State	✓

Table 4: Main properties of *imp-waaħad*.

[22] The JA examples presented in this paper were checked with native speakers of Egyptian, Hijazi, and Iraqi Arabic. Our informants confirmed that the JA patterns hold in their varieties with some dialectal differences that have no semantic or syntactic effects (e.g. *imp-waaħad* is pronounced as *waaħid* in Egyptian Arabic).

In the following section, we discuss the theory of person that will lay out the theoretical foundation for the analysis to be developed to account for *imp-waaħad* in JA.

3 A theory of person: Ackema & Neeleman (2018)

Ackema & Neeleman (2018) propose a person system that involves two main person features: Proximate (PROX) and Distal (DIST). Following the original insights of Harbour (2016), the authors take these two feature as being functions that operate over sets. The features are instantiated in the syntax via a Person node (PRS) that serves as an identity function over sets provided by the lexical core (dubbed N_{II}) of any pronominal expression. The features take a set as the input to deliver a subset as the output. The input set, provided by N_{II}, includes all the possible referents in a given context. To illustrate, the input set in **Figure 1** consists of the speaker (*i*), the addressee (*u*), and others (*o*). The input set S_{i+u+o} also contains a subset consisting of S_{i+u}, which itself contains another subset S_i.

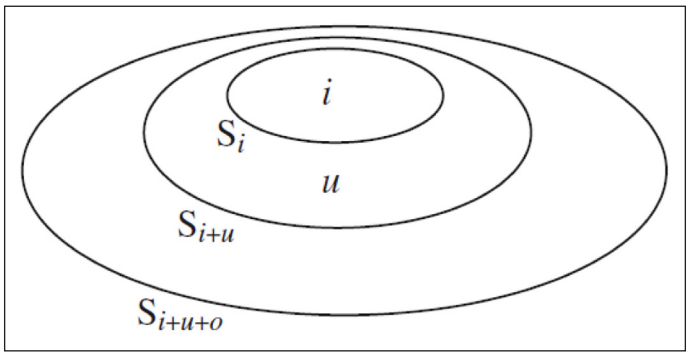


Figure 1: The input set of persons (Ackema & Neeleman 2018:23).

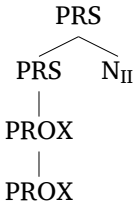
According to Ackema & Neeleman (2018), the feature PROX is a function that operates on an input set and eliminates its outermost layer. That is, when this feature applies to S_{i+u+o}, the output is S_{i+u}. On the other hand, when DIST is at play, the feature selects the outermost layer of its input set. When applied to S_{i+u+o}, the feature yields $S_{i+u+o} - S_{i+u}$. Ackema & Neeleman (2018) note that the sets in **Figure 1** are ordered in terms of precedence. That is, the subset S_i is the predecessor of the subset S_{i+u}, and at the same time, S_{i+u} is the predecessor of S_{i+u+o}.

Ackema & Neeleman (2018) argue that their system can derive the possible persons attested cross-linguistically.[23] For third person singular, the feature DIST derives $S_{i+u+o} - S_{i+u}$; a set that

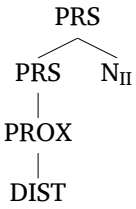
[23] In the interest of space, we will only review Ackema & Neeleman's (2018) treatment of singular pronouns. We should note, however, that for them number is encoded via a Number (NMB) node above PRS. The NMB node contains a feature PL that marks plurality and requires that its input set has a cardinality of more than one. For singular pronouns, the feature PL is absent from NMB, whereas with plural pronouns PL is present on NMB. See Ackema & Neeleman (2018) for a detailed discussion of number and its interaction with the person system.

excludes the speaker and any addressees (43c). As for the second person singular reading, Ackema & Neeleman note that the reading is generated through the application of both PROX and DIST. First, PROX selects S_{i+u}. This is a set that contains the speaker (and any of their associates) and individuals that the speaker addresses (and any of their associates). Second, DIST applies to this set and eliminates S_i. The application of DIST leaves only the addressees (and any associates) as potential referents (43b). Finally, the first person singular reading is generated through the application of PROX to the output of PROX. According to Ackema & Neeleman (2018), applying PROX to S_{i+u+o} alone will not generate a first person singular reading, because the output would be S_{i+u}; a set that obligatorily includes the speaker and the addressee. The second application of PROX eliminates the outermost layer of its input set (i.e. S_{i+u}). As such, the set generated is S_i, which only contains the speaker (43a).

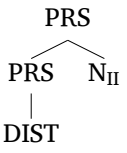
(43) a. 1st person



b. 2nd person



c. 3rd person

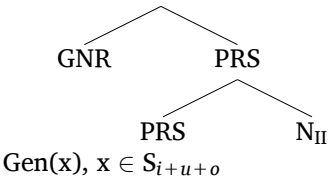


(Adapted from Ackema & Neeleman 2018:25)

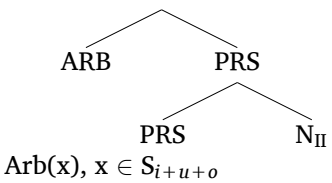
Ackema & Neeleman (2018) show that their person system can also be extended to account for impersonals. The authors first distinguish between two types of impersonals: *IMP-1* (e.g. English *one*, West Frisian *men*, and Icelandic *maður*); and *IMP-2* (e.g. German *man* and Dutch *men*). The former is exclusively generic, whereas the latter can be generic or existential (see section 2.1 above).

For *IMP-1*, Ackema & Neeleman (2018) propose that such pronouns have the structure in (44).

(44) a. Generic *IMP-1*



b. *Arbitrary *IMP-1*



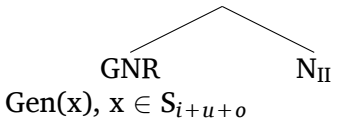
(Ackema & Neeleman, 2018:128)

Ackema & Neeleman (2018) propose that an *IMP-1* has a Person node. However, the person node, which otherwise contains PROX and/or DIST, is underspecified for any features. According

to Ackema & Neeleman (2018), the structure in (44) derives the main properties of *IMP-1* (see section 2). First, the person node, which only introduces an identity function, will deliver the set S_{i+u+o}. Under Ackema & Neeleman's (2018) system number marking in NMB is impossible if the set delivered is S_{i+u+o} (see Ackema & Neeleman (2018) chapters 2 and 3 for more details). The absence of number specification means that such pronouns will trigger default third person singular agreement. As for interpretation, the generic operator (GNR) can be applied to the initial set S_{i+u+o}, giving rise to the generic reading. The absence of person features on the PRS node entails that both the speaker *i* and the addressee *u* are included. This also means that such pronouns cannot have an arbitrary reading that excludes the speaker and addressee. Hence, the impossibility of (44b).

As for *IMP-2*, Ackema & Neeleman (2018) adopt the original idea of Egerland (2003) that such pronouns do not carry any person or number specification. This means that *IMP-2* pronouns are bare N_{II} that lack both NMB and PRS, as in (45).

(45) a. Generic *IMP-2*



b. Arbitrary *IMP-2*

(Ackema & Neeleman, 2018:122)

Under Ackema & Neeleman's (2018) system, the bare N_{II} delivers the entire input set S_{i+u+o}. Applying GNR to this set derives the generic reading, where a generalization is made over all relevant people (45a). Ackema & Neeleman (2018) note that applying ARB to the initial set is also unproblematic since no person specification is encoded in the syntax of *IMP-2* (45b).

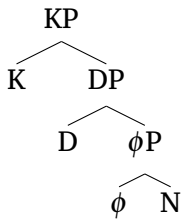
Out of the above discussion, we adopt the idea that impersonals that only give rise to a generic inclusive reading (e.g. English *one*) has a structure where an underspecified Person node projects (44a). *imp-waaħad* in JA seems to behave similarly to *IMP-1* pronouns in terms of its interpretation and syntactic distribution. Therefore, in the next section we will show that the structure proposed in Ackema & Neeleman (2018) for *IMP-1* can be fruitfully employed in deriving the main properties of *imp-waaħad*.

4 Deriving *imp-waaħad*

The data discussed in section 2 suggest that Arabic *imp-waaħad* behaves similarly to English-type pronouns in terms of its interpretation and syntactic distribution. In this section, we put forward our analysis of *imp-waaħad*, building on the analysis of Ackema & Neeleman (2018) introduced in the previous section.

To begin with, we argue that *imp-waaħad* is an instance of Ackema & Neeleman's (2018) *IMP-1* (imp-ϕ for Fenger (2018)). Following Ackema & Neeleman, we propose that the pronoun has a structure where a Person node projects. Moreover, we implement Fenger's (2018) idea that *IMP-1* pronouns (imp-ϕ) project a KP layer, which enables them to bear any case. Finally, we argue that *imp-waaħad* projects a DP layer that is overtly instantiated via the definite article *il-* (the). The structure we propose for *imp-waaħad* is seen in (46).[24]

(46)



Additionally, we propose the following feature specification for *imp-waaħad*:

(47) ***Feature specification of imp-waaħad***:
- a. *waaħad* (one.MS): [+human, –plural, +def]
- b. *waħdih* (one.FEM): [+human, –plural, feminine, +def]

We take *imp-waaħad* to be specified as [+human] (Egerland 2003). This feature restricts the denotation of *imp-waaħad* to humans. We also propose that *imp-waaħad* is underspecified for person in the syntax, similarly to other dedicated impersonals. Our proposal is based on two observations. First, *imp-waaħad* can never pick a specific referent. Any example that includes *imp-waaħad* is simply a statement that holds generally of all people. Second, *imp-waaħad* uniformly triggers 3rd person singular agreement on verbal predicates, which we take to reflect the absence of person specification (Benveniste 1971; Corbett 2006).

Regarding number, we argue that *imp-waaħad* is inherently specified as singular. The impossibility of binding a plural reciprocal (see (26) above) further supports our claim that *imp-waaħad* is syntactically singular. We assume, following recent literature, that *imp-waaħad* is semantically plural since it refers to people in general (Hoekstra 2010; Ackema & Neeleman 2018).

As for gender, we assume that masculine *imp-waaħad* is gender neutral since it is compatible with both males and females. This amounts to saying that masculine *imp-waaħad* is not specified for gender in the syntax. On the other hand, we argue that feminine *imp-waaħad* is specified as feminine in the syntax. The presence of a feminine gender feature with *waħdih* (one.FEM) is

[24] In this paper, we do not commit ourselves to any particular ordering of DP-internal phi-features. For simplicity, we will borrow the label ϕ from Fenger (2018) to collectively represent person, gender (when available with *waħdih* one.FEM), and number.

empirically motivated on the basis of agreement on adjectival and verbal predicates (see (30) and (31) above).

Finally, we propose that *imp-waaħad* is definite, and as such, it projects a DP. We take the definite article *il-* (the) to be an overt realization of D. Unlike personal referential pronouns, however, we take D to encode definiteness and genericity, but not person.[25] In section 5, we provide a number of arguments to show that *imp-waaħad* behaves as a definite (non-specific) generic DP.

The feature specifications proposed in (47) suggest a rethinking of the radical feature deficiency approach to impersonals. In particular, we propose that impersonals share the core property of being underspecified for person. This explains their inability to pick a specific referent. Nonetheless, the absence of person specification does necessarily entail the absence of number or gender specification. The agreement patterns observed with JA *imp-waaħad* strongly suggest that some impersonals carry number and even gender specification.

Now, recall from section 2 that *imp-waaħad* in JA has the following properties:

(48) ***Main properties of imp-waaħad in JA***
- (i) *imp-waaħad* has a generic inclusive reading.
- (ii) *imp-waaħad* triggers third person singular agreement.
- (iii) *imp-waaħad* can bear any case (i.e. nominative, accusative, or genitive).

In what follows, we account for the properties listed in (48).

Regarding property (i), we adopt Ackema & Neeleman's (2018) proposal that the [GEN] operator merges inside the DP. For the time being, we put aside this claim, but come back to discuss in detail below. Importantly, the application of [GEN] to *imp-waaħad* yields a generic inclusive reading, similarly to English *one* and West Frisian *men*. The absence of person specification for *imp-waaħad* does not conflict with the requirements of [GEN]. Ackema & Neeleman (2018), for instance, note that a first person singular pronoun can never have a generic reading since it is specified as [1st person, singular], which contradicts the requirements of [GEN].

For property (ii), the absence of person specification yields default third person agreement (Benveniste 1971; Corbett 2006). Since *imp-waaħad* is specified as [-plural], the pronoun triggers singular agreement. Under Ackema & Neeleman's (2018) system, this reflects the absence of the plurality feature in the number projection. In the presence of a feminine gender feature with *waħdih* (one.FEM), agreement on verbal and adjectival predicates is set to 3rd person feminine.

[25] See Ritter (1995) for a similar proposal concerning impersonals in Hebrew, where they propose that D encodes definiteness but not person.

Finally, the presence of a KP projection on top of *imp-waaħad* accounts for its ability to bear any case in line with Fenger's (2018) treatment of English-type pronouns. Thus, property (iii) is successfully accounted for.

An important point to underscore here concerns the obligatory presence of the definite article *il-* (the) before *imp-waaħad*, which (as far as we can tell) is not typical of impersonals. We assume that obligatoriness of the definite article is due to the way the generic reading is negotiated in Arabic in general.[26] The examples in (49) adopted from Fassi-Fehri (2004) show that the generic reading in Modern Standard Arabic (MSA) is available through the use of the definite article *al-*, which is also true of the modern varieties of Arabic. On the other hand, the examples in (50) show that only an arbitrary (i.e. existential) reading is available in the absence of the definite article. Note that both readings are not affected by number marking.[27]

(49) a. MSA
al-kalb-u *y-anbaħ-u*
the-dog.MS-NOM bark.3MS
'The dog barks.'

b. *al-kilaab-u* *t-anbahħ-u*
the-dogs.MPL-NOM bark.3FS
'The dogs bark (Dogs bark).'

(Fassi-Fehri 2004:44)

(50) a. MSA
kalb-u-n *y-anbaħ-u*
dog.MS-NOM bark.3MS
'A dog is barking.'

---

[26] It has long been noted that there is a definiteness restriction on Arabic preverbal subjects. In particular, indefinite preverbal subjects in Arabic are marginal or even ungrammatical in some varieties, whereas definite preverbal subjects are grammatical without any restrictions (see **?** and Makkawi (2021)). Therefore, in most varieties of Arabic an indefinite nominal cannot occur in SVO order unless preceded by expletive *fii* (there), or if it's modified by an AP or a PP (**?**). Given this, one could entertain the possibility that the obligatory presence of the definite article before *imp-waaħad* is due to the definiteness restriction on preverbal subjects. However, it was shown above that *imp-waaħad* must bear the definite article when it appears in VSO order as well (see (9b) above). In VSO order, both definite and indefinite nominals are possible without any restrictions.

[27] Reference to mass generics is another context in which the definite article is obligatory (Fassi-Fehri 2004; 2012). Arabic contrasts with English as far as reference to mass generics is concerned. In particular, the definite article has to be present with mass generics in Arabic (i), but not in English (ii).

(i) **(il)-tuffaħ ɣani* *bi-l-alyaaf*
the-apple rich.MS in-the-fibers.FPL
'Apples are rich in fiber.'

(ii) (*The) apples are rich in fiber.

b. *kilaab-u-n* *t-anbaħ-u*
dogs.MPL-NOM bark.3FS
'Dogs are barking.'

(Fassi-Fehri 2004:44)

The above examples clearly show that Arabic generics have to be definite, as such, they must overtly realize the definite article. Fassi-Fehri (2004) formally captures this by postulating a Generic Phrase (GenP) below DP that serves to create DP-internal genericity (i.e. D-binding). Putting aside the specifics of Fassi-Fehri's analysis, the notion of D-binding aligns with Ackema & Neeleman's (2018) proposal that generic binding takes place inside the DP.[28]

The D-binding analysis of *imp-waaħad* makes the following prediction: if [GEN] binding takes place DP-internally, as opposed to being introduced at the clause level (i.e. S-binding), then the generic inclusive reading of *imp-waaħad* should not be affected by DP-external factors, such as the aspectual specification of the clause. More precisely, D'Alessandro & Alexiadou (2002) propose that inclusiveness/exclusiveness of the speaker under the impersonal use of pronouns is based on aspect specification. Based on the behavior of impersonals in Romance, D'Alessandro & Alexiadou propose that imperfect aspect triggers a generic reading on impersonals (51a), since imperfective aspect brings about a generic operator (Chierchia 1995). As such, the speaker might be optionally included in the impersonal reading. On the other hand, perfective aspect triggers an obligatory inclusive reading (51b).

(51) a. Italian
In quel ristorante si mangiava bene
in that restaurant si ate-IPFV well
'People used to eat well in that restaurant.' (GEN)

b. *In quel ristorante si è mangiato bene*
in that restaurant si is eaten-PFV well
'We have eaten well in that restaurant.' (INCL)

(D'Alessandro & Alexiadou 2002:35)

In Arabic, 3rd person plural null subjects are assumed to be exclusively generic (Fassi-Fehri 2009; 2012). The following example adapted from Fassi-Fehri (2009) illustrates this:[29]

---

[28] As for exact positioning of [GEN] relative to DP, three options are possible: (i) [GEN] directly merges with the pronoun (Ackema & Neeleman 2018), (ii) below DP via a GenP as in Fassi-Fehri (2004); or (iii) it could be hypothesized that a D that is unspecified for person introduces [GEN]. We remain neutral as to which option is viable.

[29] As Fassi-Fehri (2009) notes, Arabic is a null subject language that makes use of silent subject pronouns. According to Fassi-Fehri, this is only possible when the verb bears rich enough inflection to induce the right pronominal interpretation.

(52) MSA
fii S-Sahraa?-i ***y-uħibb-uu-na*** *š-šaay-a* *l-muħallaa*
in the-sahara 3-like-PL-INDF the-tea-ACC the-sugared
'In the Sahara, they like sweet tea.'

(Fassi-Fehri 2009:8)

At closer inspection, however, it seems that aspect affects the reading of an impersonal null pronoun. For instance, the example in (53a) with imperfective aspect can only be interpreted generically. So, the example is understood as people in Jordan eat *Mansaf* (a traditional Jordanian dish) a lot. On the other hand, the example in (53b) with perfective aspect can only be existential. That is, there is an unspecified group of people who ate *Mansaf*.

(53) a. *bi-l-urdon* *kteer* ***biukluu*** *Mansaf*
in-the-Jordan many eat.3MPL Mansaf
Intended: 'People in Jordan eat Mansaf a lot.'

b. *bi-l-urdon* *kteer* ***ʔakaluu*** *Mansaf*
in-the-Jordan many ate.3MPL Mansaf
Intended: 'Some group of people ate Mansaf.'

By contrast, the aspectual specification of the clause does not affect the interpretation of *imp-waaħad*. For instance, the example in (54) with perfective aspect can only have a generic inclusive reading. Likewise, the example in (55) with imperfective aspect has the same reading in (54).[30]

(54) *il-waaħad* *ʕaana* *ktiir* *bisabab* *il-ħajir*
the-one.MS struggled.3MS many because the-lockdown.MS
Intended: 'People struggled a lot due to the lockdown.'

(55) *il-waaħad* *ʕam* *yiʕaani* *ktiir* *bisabab* *il-ħajir*
the-one.MS PROG struggle.3MS many because the-lockdown.MS
Intended: 'People are struggling a lot due to the lockdown.'

Thus, it seems obvious that aspect does not affect the reading of *imp-waaħad*. This supports our claim that the generic reading of *imp-waaħad* is negotiated DP-internally. In the next section, we provide a number of arguments to show that *imp-waaħad* behaves syntactically as a definite DP.

5 The definiteness of *imp-waaħad*

Typically, dedicated impersonals are classified as either indefinite (Condoravdi 1989; Moltmann 2006; Malamud 2012), definite (Kratzer 1997; Alonso-Ovalle 2002; Hoekstra 2010; Hall 2018), or a-definite (Koenig & Mauner 1999; Zobel 2016). In this section, we rely on existing and new

[30] Following Fassi-Fehri (2012), we assume that perfectivity in Arabic correlates with past tense, whereas imperfectivity correlates with non-past.

tests of syntactic definiteness and show that *imp-waaħad* exhibits the properties of a typical definite generic DP.[31]

Hoekstra (2010) argues that impersonals are the pronominal equivalents of generic DPs. Hoekstra shows that impersonals pass the usual syntactic definiteness tests, and concludes that that pronouns are definite, but non-specific. In what follows, we will use some the diagnostics of syntactic definiteness introduced in Hoekstra (2010).

One diagnostic that is usually used to distinguish between definite and indefinite expressions is Quantificational Variability Effects (QVE) with adverbs of quantification like *often* and *usually* (Lewis 1975). In their discussion of Frisian impersonal *men*, Hoekstra (2010) uses QVE to determiner whether *men* is a definite or an indefinite-like expression. The Frisian examples in (56) show that (in)definiteness of the noun *studint* (student) yields different quantificational effects for the adverb *usually*. In particular, the example in (56a) with the indefinite DP *in studint* (a student) shows QVE effects, such that the example is understood as 'most smart students are proud'. That is, the adverb quantifies over the variable introduced by the indefinite noun. On the other hand, the example in (56b) with the definite noun *de studint* (the student) is understood as 'a certain student's intelligence and pride mostly fluctuate together'. Hoekstra (2010) shows that Frisian impersonal *men* is an indefinite-like expression since it shows QVE effects (57), similarly to the indefinite expression in (56a).[32]

(56) a. Frisian
At in studint tûk is, is er ornaris grutsk.
If a student smart is, is he usually proud
'If a student is smart, he is usually proud.'
(✓QVE)

b. *At de studint tûk is, is er ornaris grutsk.*
If the student smart is, is he usually proud
'If the student is smart, he is usually proud.'
(*QVE)

(Hoekstra 2010:51)

[31] The idea that impersonals project a DP is not new. Hall (2018) argues that MLE *man* is a true definite and projects a DP. Hall's (2018) primary motivation for the projection of D is to account for *man's* resistance to binding of any sort (e.g. generic and anaphoric binding). Additionally, MLE's *man* can be interpreted as any person and number combination (1SG, 1PL, 2SG, 2PL, 3SG, 3PL). Hall (2018) argues that D obligatorily projects and introduces an epsilon operator (Egli & von Heusinger 1995; Heusinger 2004) that binds the variable over the set introduced by the pronoun. The epsilon operator on D blocks any further external binding by operators like [GEN].

[32] Hoekstra (2010) provides examples where definite generic DPs in Frisian can also show QVE effects. Hoekstra (2010:51) concludes that "the QVE test seems to distinguish, not between definite and indefinite, but rather between specific and non-specific". Moreover, Chierchia (1995) notes that even definite DPs can sometimes show QVE effects in some contexts in English. Due to space limitations, we will not discuss the examples both authors provide here. Instead, we refer the interested reader to Hoekstra (2010) and Chierchia (1995) for a detailed discussion of these observations.

(57) Frisian
At men tûk is, is men ornaris grutsk.
If one smart is, is one usually proud
'If one is smart, one is usually proud.'
(QVE reading: 'Most smart people are proud.')

(Hoekstra 2010:51)

Applying this diagnostic to JA *imp-waaħad* shows that the pronoun does not show QVE effects. Like the definite description *il-Taalib* (the student) in (58a), the example in (58b) containing *imp-waaħad* can only mean that one's intelligence and pride fluctuate together.

(58) a. *ʔiða kaan il-Taalib ðaki, ʕadatan bikuun faxuur*
if was.MS the-student.MS smart.MS, usually be.3MS proud.MS
'If the student is smart, he is usually proud.'
(*QVE)

b. *ʔiða kaan il-waaħad ðaki, ʕadatan bikuun faxuur*
if was.MS the-one.MS smart.MS, usually be.3MS proud.MS
'If one is smart, he is usually proud.'
(*QVE)

Another argument that shows the definiteness of *imp-waaħad* comes from existential-*fii* constructions in JA. As in English existential *there*-constructions (Kayne 2008), the subject of an existential *fii* clause must be indefinite (Abdel-Ghafer & Jarbou 2015). The example in (59) shows that the noun *walad* (boy) can appear as the subject of an existential *fii* clause only when it is indefinite.

(59) *fii (*il)-walad saʔal ʕann-ak*
EXP (the)-boy.MS asked.3MS about-you
Intended:'A boy asked about you.'

Imp-waaħad cannot appear in the same environment in (59), as evidenced from the ungrammaticality of (60).

(60) **fii il-waaħad saʔal ʕann-ak*
EXP the-one.MS asked.3MS about-you
Intended: 'Someone asked about you.'

Finally, if *imp-waaħad* is indeed a definite DP, it is predicted that it can be coordinated with a full DP. This prediction is borne out in (61).

(61) *il-waaħad u mart-uh laazim yinaaQšuu mašaakil-hum*
the-one.MS and wife-his must discuss.3MPL problem-their
Intended: 'A man and his wife must discuss their problems.'

Summarizing, the above facts suggest that *imp-waaħad* syntactically behaves as a definite DP.[33] Following Hoekstra (2010), we assume that both personal and impersonal pronouns are definite and that the difference between the two types boils down to specificity (Givón 1978). In particular, Hoekstra (2010) proposes that impersonals are definite (like personal pronouns) in that they generically refer to the whole ensemble of persons that is familiar to everyone. However, the difference between personal and impersonal pronouns is that personal pronouns can be either specific or non-specific (i.e. the speaker has/does not have a particular person(s) in mind), whereas impersonals are always non-specific.[34] That is, the speaker does not refer to any particular person(s) when using an impersonal generic pronoun. The same is also true of *imp-waaħad* in JA. It seems clear that, by using *imp-waaħad*, the speaker does not have the intention to refer to any particular person(s). Thus, we conclude that *imp-waaħad* is a non-specific definite DP.

6 Conclusion

The purpose of this paper was twofold: (i) to investigate the morphosyntax of *imp-waaħad* in JA and its implications for the cross-lingusitic typology of impersonals, and (ii) to argue that a radical feature deficiency approach to impersonals does not hold for JA *imp-waaħad*. For (i), we showed that *imp-waaħad* behaves similarly to English-type impersonals in terms of its interpretation and syntactic distribution. In particular, *imp-waaħad* can only have generic inclusive reading and can appear in multiple syntactic positions. To capture this behavior, we adopted the structure proposed in Ackema & Neeleman (2018) for English-type impersonals and its specific implementation in Fenger (2018) where it is argued that pronouns that are exclusively generic project a KP, and as such, can bear any case. Additionally, we argued that *imp-waaħad* is best analyzed as a definite (non-specific) generic DP. Our claim was empirically motivated on the basis of several diagnostics of syntactic definiteness.

As for (ii), we investigated agreement patterns with *imp-waaħad* to determine its internal feature make-up. We showed that whereas *imp-waaħad* is underspecified for person, the pronoun is always specified for singular number and for also feminine gender in some contexts. The JA data suggest a rethinking of the radical feature deficiency approach to impersonals. In particular, we proposed that impersonals share the core property of being underspecified for person. Nonetheless, the absence of a person feature does necessarily entail the absence of number or gender specification.

---

[33] Although we proposed a different feature specification for feminine *imp-waaħad* (i.e. *waħdih* 'one.FEM'), all the examples introduced in this section are possible with the pronoun.

[34] See Hoyt (2009) for a discussion of specificity in Arabic.

Abbreviations

1 = first person, 2 = second person, 3 = third person, M = masculine, F = feminine, SG = singular, PL = plural, NEG = negation, GEN = generic, EXT = existential, PROG = progressive, IPFV = imperfective, PFV = perfective, ACC = accusative, NOM = nominative, INDF = indefinite, INCL = inclusive

Acknowledgements

We thank two anonymous *Glossa* reviewers for their helpful comments and suggestions.

Competing Interests

The authors have no competing interests to declare.

References

Abdel-Ghafer, Osama & Jarbou, Samer. 2015. An existential expletive: *fii* of Jordanian Arabic. *Folia Linguistica* 49(1). 159–184. DOI: https://doi.org/10.1515/flin-2015-0005

Ackema, Peter & Neeleman, Ad. 2018. *A grammar of person*. Cambridge: MIT Press. DOI: https://doi.org/10.7551/mitpress/11145.001.0001

Al-Balushi, RashidAli. 2011. *Case in Standard Arabic: The untraveled paths*. Toronto: University of Toronto dissertation.

Alhailawani, Mohammad. 2018. *Nominal structure and ellipsis in Jordanian Arabic*. London: Queen Mary University of London dissertation.

Alhailawani, Mohammad. 2019. Indefinite and not-so-indefinite DPs in Jordanian Arabic. *SKASE Journal of Theoretical Linguistics* 16(4). 48–64.

Alhailawani, Mohammad. 2021. Against a uniform analysis of adnominal possessives in Jordanian Arabic: Evidence from nominal ellipsis. *Poznan Studies in Contemporary Linguistics* 57(3). 359–395. DOI: https://doi.org/10.1515/psicl-2021-0015

Alhailawani, Mohammad. 2022. Unifying ellipsis and pronominalization in Jordanian Arabic. *Studia Linguistica* 76(3). 791–836. DOI: https://doi.org/10.1111/stul.12196

Alkohlani, Fatima. 2016. The problematic issue of grammatical gender in Arabic as a foreign language. *Journal of Language and Cultural Education* 4(1). 17–28. DOI: https://doi.org/10.1515/jolace-2016-0002

Alonso-Ovalle, Luis. 2002. Arbitrary pronouns are not that indefinite. In Beyssade, Claire & Bok-Bennema, Reineke & Drijkoningen, Frank & Monachesi, Paola (eds.), *Romance languages and linguistic theory: Selected papers from going romance*, 1–14. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/cilt.232.02alo

Benveniste, Émile. 1971. The nature of pronouns. In Gables, Coral (ed.), *Problems in general linguistics*, 217–222. Miami: University of Miami Press.

Borer, Hagit. 1996. The construct in review. In Lecarme, Jacqueline & Lowenstamm, Jean & Shlonsky, Ur (eds.), *Studies in Afroasiatic Grammar*, 30–61. The Hague: Holland Academic Graphics.

Borer, Hagit. 2005. *In name only: Structuring sense*. Oxford: Oxford University Press. DOI: https://doi.org/10.1093/acprof:oso/9780199263905.001.0001

Cardinaletti, Anna & Starke, Michal. 1999. The typology of structural deficiency: A case study of the three classes of pronouns. In van Riemsdijk, Henk (ed.), *Clitics in the languages of europe*, 145–234. Berlin: Mouton de Gruyter. DOI: https://doi.org/10.1515/9783110804010.145

Chierchia, Gennaro. 1995. The variability of impersonal subjects. In Bach, Emmon & Jelinek, Eloise & Kratzer, Angelika & Partee, Barbara (eds.), *Quantification in natural languages*, 107–143. Dordrecht: Kluwer.

Cinque, Guglielmo. 1988. On *Si* constructions and the theory of *Arb*. *Linguistic inquiry* 19(4). 521–581.

Condoravdi, Cleo. 1989. Indefinite and generic pronouns. In Fee, E. Jane & Hunt, Katherine (eds.), *Proceedings of the eigth west coast conference on formal linguistics (wccfl)*. 71–84.

Corbett, GrevilleG. 2006. *Agreement*. Cambridge: Cambridge University Press.

D'Alessandro, Roberta & Alexiadou, Artemis. 2002. Inclusive and exclusive impersonal pronouns: A feature-geometrical analysis. *Rivista di Grammatica Generativa* 27. 31–44.

Egerland, Verner. 2003. Impersonal pronouns in Scandinavian and Romance. *Working Papers in Scandinavian Syntax* 71. 75–102.

Egli, Urs & von Heusinger, Klaus. 1995. The epsilon operator and E-type pronouns. In Egli, Urs & Pause, Peter & Schwarze, Christoph & von Stechow, Arnim & Wienold, Götz (eds.), *Lexical knowledge in the organisation of language*, 121–146. Amsterdam: Benjamins. DOI: https://doi.org/10.1075/cilt.114.07egl

Fassi-Fehri, Abdelkader. 2004. Nominal classes, reference, and functional parameters, with particular reference to Arabic. *Linguistic variation yearbook* 4(1). 41–108. DOI: https://doi.org/10.1075/livy.4.03feh

Fassi-Fehri, Abdelkader. 2009. Arabic silent pronouns, person, and voice. *Brill's Journal of Afroasiatic Languages and Linguistics* 1(1). 3–40. DOI: https://doi.org/10.1163/187666309X12526624903239

Fassi-Fehri, Abdelkader. 2012. *Key features and parameters in Arabic grammar*. John Benjamins Publishing Company. DOI: https://doi.org/10.1075/la.182

Fenger, Paula. 2018. How impersonal does one get? *The Journal of Comparative Germanic Linguistics* 21(3). 291–325. DOI: https://doi.org/10.1007/s10828-018-9101-0

Givón, Talmy. 1978. Definiteness and referentiality. In Greenberg, Joseph & Ferguson, Charles & Moravcsik, Edith (eds.), *Universals of human language*, 291–330. Stanford: Stanford University Press.

Günther, Christine. 2013. *The elliptical noun phrase in English: Structure and use*, vol.16. Routledge. DOI: https://doi.org/10.4324/9780203076194

Hall, David. 2018. The impersonal gets personal: A new pronoun in Multicultural London English. *Natural Language and Linguistic Theory* 38. 117–150. DOI: https://doi.org/10.1007/s11049-019-09447-w

Harbour, Daniel. 2016. *Impossible persons*. Cambridge: MIT Press. DOI: https://doi.org/10.7551/mitpress/9780262034739.001.0001

Heusinger, Klausvon. 2004. Choice functions and the anaphoric semantics of definite NPs. *Research on language and Computation* 2(3). 309–329. DOI: https://doi.org/10.1007/s11168-004-0904-6

Hoekstra, Jarich. 2010. On the impersonal pronoun *men* in Modern West Frisian. *The Journal of Comparative Germanic Linguistics* 13(1). 31–59. DOI: https://doi.org/10.1007/s10828-010-9036-6

Holmberg, Anders. 2005. Is there a little *pro*? Evidence from Finnish. *Linguistic inquiry* 36(4). 533–564. DOI: https://doi.org/10.1162/002438905774464322

Holmberg, Anders. 2010. The null generic subject pronoun in Finnish: A case of incorporation in T. In Biberauer, Theresa & Holmberg, Anders & Roberts, Ian & Sheehan, Michelle (eds.), *Parametric variation: Null subjects in minimalist theory*, 200–230. Cambridge: Cambridge University Press. DOI: https://doi.org/10.1017/CBO9780511770784.006

Holmberg, Anders & Phimsawat, On-Usa. 2015. Generic pronouns and Phi-features: Evidence from Thai. In *Newcastle and northumbria working papers in linguistics*, vol.21. 55–71.

Hoyt, Frederick. 2009. Specificity. In Eid, Mushira & Elgibali, Alaa & Woidich, Manfred & Zaborski, Andrzej (eds.), *Encyclopedia of Arabic Language and Linguistics*, 315–320. Leiden: E.J. Brill.

Ionin, Tania. 2006. This is definitely specific: Specificity and definiteness in article systems. *Natural language semantics* 14(2). 175–234. DOI: https://doi.org/10.1007/s11050-005-5255-9

Kayne, Richard. 2008. Expletives, datives, and the tension between morphology and syntax. In Biberauer, Theresa (ed.), *The limits of syntactic variation*, vol. 132, 175–217. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/la.132.07kay

Koenig, Jean-Pierre & Mauner, Gail. 1999. A-definites and the discourse status of implicit arguments. *Journal of Semantics* 16(3). 207–236.

Kornfilt, Jaklin & Preminger, Omer. 2015. Nominative as no case at all: An argument from raising-to-accusative in Sakha. In Joseph, Andrew & Predolac, Esra (eds.), *Proceedings of the 9th workshop on altaic formal linguistics (wafl 9)*. 109–120. Cambridge MA: Vol. 76 of MIT working papers in linguistics.

Kratzer, Angelika. 1997. German impersonal pronouns and logophoricity. Berlin: Handout, Sinn und bedeutung.

Krifka, Manfred & Pelletier, Francis & Carlson, Gregory & ter Meulen, Alice & Chierchia, Gennaro & Link, Godehard. 1995. Genericity: An introduction. In Carlson, Gregory & Pelletier, Francis (eds.), *The generic book*, 1–24. Chicago: The University of Chicago Press.

Lewis, David. 1975. Adverbs of quantification. In Keenan, Edward (ed.), *Formal semantics of natural language*, 3–15. Cambridge: Cambridge University Press. DOI: https://doi.org/10.1017/CBO9780511897696.003

Makkawi, Amani. 2021. *Preverbal subjects in Makkan Arabic: A feature-inheritance approach*. Manitoba: University of Manitoba Winnipeg dissertation.

Malamud, Sophia. 2012. Impersonal indexicals: *one*, *you*, *man*, and *du*. *The Journal of Comparative Germanic Linguistics* 15(1). 1–48. DOI: https://doi.org/10.1007/s10828-012-9047-6

Marantz, Alec. 1991. Case and licensing. In Westphal, Germán & Ao, Benjamin & Chae, Hee-Rahk (eds.), *Proceedings of escol '91*. 234–253. Ohio State University Department of Linguistics.

Moltmann, Friederike. 2006. Generic *one*, arbitrary PRO, and the first person. *Natural language semantics* 14(3). 257–281. DOI: https://doi.org/10.1007/s11050-006-9002-7

Nevins, Andrew. 2007. The representation of third person and its consequences for person-case effects. *Natural Language and Linguistic Theory* 25(2). 273–313. DOI: https://doi.org/10.1007/s11049-006-9017-2

Preminger, Omer. 2014. *Agreement and its failures*. Cambridge: MIT Press. DOI: https://doi.org/10.7551/mitpress/9780262027403.001.0001

Ritter, Elizabeth. 1991. Two functional categories in noun phrases: Evidence from Modern Hebrew. In Rothstein, Susan (ed.), *Syntax and semantics 25: Perspectives on phrase structure*, 37–62. New York: Academic Press. DOI: https://doi.org/10.1163/9789004373198_004

Ritter, Elizabeth. 1995. On the syntactic category of pronouns and agreement. *Natural Language and Linguistic Theory* 13(3). 405–443. DOI: https://doi.org/10.1007/BF00992737

Ritter, Elizabeth & Wiltschko, Martina. 2019. Nominal speech act structure: Evidence from the structural deficiency of impersonal pronouns. *The Canadian Journal of Linguistics/La revue canadienne de linguistique* 64(4). 709–729. DOI: https://doi.org/10.1017/cnj.2019.10

Shlonsky, Ur. 2004. The form of Semitic noun phrases. *Lingua* 114(12). 1465–1526. DOI: https://doi.org/10.1016/j.lingua.2003.09.019

Siewierska, Anna. 2011. Overlap and complementarity in reference impersonals: Manconstructions vs. third person plural-impersonals in the languages of europe. In Malchukov, Andrej & Siewierska, Anna (eds.), *Impersonal constructions: A crosslinguistic perspective*, 57–90. Amsterdam: Benjamins. DOI: https://doi.org/10.1075/slcs.124.03sie

Soltan, Usama. 2007. *On formal feature licensing in minimalism: Aspects of Standard Arabic morphosyntax*. Maryland: University of Maryland dissertation.

Zeijlstra, Hedde. 2015. Let's talk about you and me. *Journal of Linguistics* 51(2). 465–500. DOI: https://doi.org/10.1017/S0022226714000474

Zobel, Sarah. 2016. On the (in)definiteness of impersonal pronouns. *Linguistica* 56(1). 363–374. DOI: https://doi.org/10.4312/linguistica.56.1.363-374