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“Amsterdam, you're raining!” First-hand experience in tweets with spatio-temporal addressees



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ABSTRACT

The construction [X, *you are/were* Y], where X is a spatio-temporal addressee, is widely attested on Dutch social media. We investigated this construction in a Twitter corpus, and found that Twitter users use the construction to tell their audience about a current or recent experience at the location addressed, while at the same time evaluating said experience. Reference to this first-hand experience is not overtly expressed, yet it is an essential interpretive aspect of the construction. The grammatical components of the construction all contribute in their own way to this interpretation. Although the use of the vocative and the second person pronoun personify the spatio-temporal addressee to a certain degree, the addressee's spatio-temporal characteristics remain crucial, as they provide the background for the reported experience. It is noticeable that particular instances of the construction, which would be blatantly ungrammatical in other contexts, are now acceptable in virtue of these spatio-temporal characteristics of the fictive addressee. This reveals the flexibility of grammar, as it shows how grammar can adapt to the possibilities and limitations of social media use, and make otherwise ungrammatical utterances, such as 'you are raining', fully comprehensible.

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1. Introduction

Consider the following example in Dutch from Twitter, where the speaker expresses their fondness for the city of Amsterdam. The tweet is not only *about* Amsterdam but also explicitly directed to it¹:

- (1) *Amsterdam je bent fantastisch*
'Amsterdam you are fantastic.'

Addressing an inanimate entity such as a city falls under what Pascual (2002, 2006a, 2006b, 2014) refers to as *fictive interaction*. Since the purpose of language is communication, the structure of language in general reflects conversational patterns (Ginzburg and Poesio, 2016), even when an interlocutor is absent. As Pascual (2014: 4) puts it, “we speak to ourselves as well as to non-verbal individuals and entities”. Examples such as (1), in which a city functions as the fictive addressee of the utterance, are widely attested on Dutch social media (cf. Liebrecht, 2015). This raises the question of what their function may

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¹ Note that we copied all spelling errors from the original tweets we use in the examples.

be. Because Twitter prompts its users to answer the question “What are you doing?”, it creates messages in which users report on their daily life experiences (Marwick and boyd, 2010: 116). We argue that this is indeed the function of the construction under consideration, by which Twitter users report on their own experiences at the location or event that is fictively addressed. By telling Amsterdam that it is fantastic, they in fact tell their (imagined) audience that they are having or recently had a fantastic experience *in* Amsterdam.

Section 2 provides some background information on the main characteristics of Twitter and the function of addressing in tweets. Section 3 reports a Twitter corpus study to investigate how utterances with spatio-temporal addressees are used. We argue that the construction [X, you are/were Y] in which X is a spatio-temporal addressee is used to report Twitter users' personal experiences on location. We show that these tweets differ from the ones explicitly addressing people. Section 4 discusses the various components of the construction, and how these shed light on its use on social media. Although the spatio-temporal addressee is personified to a certain degree, its spatio-temporal characteristics remain crucial, because this is what provides the link between the construction and the user's experience. It will become clear that this can have far-reaching grammatical consequences, showing that the grammatical system can adapt in order to accommodate otherwise ungrammatical utterances with fictive spatio-temporal addressees. Section 5 concludes.

2. Address at Twitter

Twitter developed in 2006 as an instantiation of so-called *microblogging*, involving short social media posting (Zappavigna, 2017a). Twitter originally asked its users to answer the question “What are you doing?”, but Zappavigna (2017a) convincingly argues that the core function of Twitter has always been to establish social, interpersonal relations, and not just to give factual status updates about users' personal activities. Twitter offers a medium for expressing interpersonal meaning and personal evaluation to a large audience (Zappavigna, 2011). This is supported by what Twitter users themselves have said, such as McCracken (2009), who gives Twitter users the advice not to answer the above question, “unless you're doing something really interesting, inspiring, funny, or strange.”

In a later stage, Twitter's prompt shifted to “What's happening?”, and it started attracting new users with the audience-centred invitation to “Follow your interests” (Burgess, 2015). Zappavigna (2011; 2017a; 2017b) focusses on social bonding through linguistic means as the most important purpose of Twitter, even when Twitter users do not necessarily interact directly. Zappavigna (2011: 790) points out that, although there is no communal expectation that anyone respond to a tweet, there is “a social need among users to engage with other voices in public and private feeds.” She describes this as a community-driven feature that has made Twitter a form of ‘public conversation’. Twitter thus essentially involves conversation (Honeycutt and Herring, 2009).

Clearly, being a form of public conversation, Twitter has developed means to address other users, the most salient of which is the @ character, as a marker of addressing and referring to other users. The @ character followed by a username can be used to indicate that the person referred to by the username is directly addressed in the tweet. In this case, especially when it is in sentence-initial position, it marks a vocative. When it is not in sentence-initial position, it “is more likely to indicate a reference to a particular user rather than to explicitly inscribe a direct address” (Zappavigna, 2017a: 209). This difference is also referred to as the difference between @reply and @mention, respectively (Fitton et al., 2015). Note that, irrespective of the difference between @reply and @mention, interpersonal meaning does not have to be expressed explicitly (Zappavigna, 2017a).

Zappavigna (2017b) surveys pragmatic approaches to social media that are focussed on the role of evaluative language. Once again, she argues that social affiliation through facilitating interaction is the main aim of social media, pointing out that in microblogging such as Twitter, it is not uncommon for users to devote entire posts to expressing their current emotional states. Indeed, as Zappavigna (2017b: 435) notes, “[s]ocial media texts rarely present bald facts or narrate activities and events without adopting some kind of evaluative stance, since sharing and contesting opinion and sentiment is central to social media discourse.” It is important to understand how the language used in social media works to achieve this aim. However, Zappavigna (2017a: 204) notes that the majority of studies investigating Twitter take a communication or media studies approach, and that a “detailed linguistic analysis of particular types of social media texts is a complex undertaking”.

An undeniably linguistic account of the use of polite versus informal markers of address on Twitter is Foster et al. (2019). They describe Twitter as “an exciting new source of linguistic data for address research” (Foster et al., 2019: 75). An example of a Spanish tweet containing address is given in (2) (Foster et al., 2019: 90):

- (2) @Username estoy muy feliz por ti
'@Username I'm very happy for you.'

Although a tweet such as (2) usually appears as a response to another user or a direct statement to another user, Foster et al. point out that other users may also read and respond to it. Because not all tweets directly address another user, they argue that in fact, many tweets containing address exhibit unique complexities for linguistic analysis. As an example, they present the Colombian Spanish tweet in (3), which seems directed to the famous tennis player Novak Djokovic (Foster et al., 2019: 78).

- (3) Sos grande Djokovic ...
'You're great, Djokovic ...'

Because Djokovic is not mentioned with a vocative marker @, he is unlikely to actually ever read the tweet. Therefore, Foster et al. (2019) conclude that the tweet is not 'really' directed at Djokovic, but rather at an *unaddressed audience*, similar to an unknown audience in a play, or the consumers of songs as mass media products (Moyna, 2015). In these cases not one individual is addressed, but an unaddressed (imagined) audience, and this can even happen when specific addressees are mentioned, as in (3) above (Foster et al., 2019).

The present study also uses Twitter as a data source for the linguistic investigation of address, in order to arrive at a better understanding of the workings of language and communication in tweets that are fictively directed to places or events, as exemplified in (1) above. We analyse the linguistic characteristics of this type of construction, in order to contribute to the understanding of how language is used to evaluate certain experiences and feelings on social media, and thus facilitate social bonding (Zappavigna, 2017b). More in particular, we address the question which linguistic features of the construction under consideration contribute to this communicative feat.

3. A Dutch Twitter corpus study

3.1. Research question

Although it does not appear to be an exclusively Dutch phenomenon, the current paper focuses on fictively addressing places and events in Dutch, because the phenomenon is ubiquitous on Dutch social media (Liebrecht, 2015), and a relevant and sufficiently large Twitter data set is available to study it (Tjong Kim Sang and Van den Bosch, 2013). Whether fictively addressing locations in other languages exhibits similar features as in Dutch or not, remains a topic for future research.

An important question is whether the phenomenon, as illustrated in (1) above, simply reflects the need for a conversational partner – who is often not directly available on Twitter – or whether there is something more to it. What is the speaker's intention with tweets such as in (1) above? This type of utterance starts with the name of a place that is interpreted as vocative, as indicated by the use of a second person pronoun. The addressivity is fake, however, as spatio-temporal addressees cannot read. Recall that an addressivity marker @ that is put before a username in sentence-initial position on Twitter, explicitly marks the vocative function (Zappavigna, 2017a). As such, by using it, users can directly address other users by mentioning or replying to them. However, a place such as Amsterdam in (1), whether or not preceded by @, will not be able to read the tweet. Hence, the tweet must be meant for somebody else, namely a general, unaddressed audience (Foster et al., 2019). The presence of a vocative marker @ could still indicate a real addressee, for example the municipality of Amsterdam, but the absence of an explicit vocative marker in (1) is a clear signal that indeed, Amsterdam is treated as a fictive addressee. Thus, tweets like the one in (1) are not meant for a specific reader but for a wider (imagined) audience instead.

The vocative is followed by a fictive illocution, which can be either positive or negative, e.g., a compliment or a complaint. Because the illocution is directed at a fictive addressee, we hypothesize that it does not function the same way it would in case of a real, i.e., human, addressee. The tweet may superficially contain a directive speech act (Searle, 1969), but the illocutions are not real, because the fictive addressee cannot be influenced by the Twitter user to perform an action. Therefore, at a pragmatic level, illocutions in this type of tweets have to be understood differently. The question we aim to address by means of a corpus study presented in this section, is whether differences can be found between the type of illocutions directed to a spatio-temporal addressee and the ones directed to a human addressee, and if so, how we can explain these differences. On the basis of the corpus study presented below we propose that speakers use these tweets to share their experiences in a certain place. The use of a second person pronoun can be seen as a strategy to invite the actual addressee (the reader of the tweet) to live through the experience with them.

3.2. Materials and methods

3.2.1. Datasets

For our qualitative corpus study, we made use of the TwiNL collection of Dutch tweets (Tjong Kim Sang and Van den Bosch, 2013). Based on the distributional properties of 28 place names from a pre-composed list containing countries, cities, and events, we generated a list of over 2 million possible place names. From these, we selected the 2180 most frequent items, which we used in our query. We searched for tweets that started with a place name (skipping initial @'s), followed by a second person singular pronoun (*je, jij, jy, jou, jouw, ge, u, gij, gy, uw*). The place name could optionally be followed by a comma, and the tweet could also potentially contain a hashtag (#). This query yielded 31,541 tweets. We then manually selected 657 tweets from 2011 to 2015, with only instances of *je* and *jij* as personal pronouns.² Tweets in languages other than Dutch (e.g., Afrikaans, French) were excluded, as were tweets in which a place referred to people (such as a country's or city's name for their soccer team), tweets in which a place was not addressed but simply mentioned, and tweets starting with a username. We removed 74 tweets on the basis of these constraints, which left us with 583 unique tweets. Tweets that

² Note that *je* is both a personal pronoun 'you' and a possessive pronoun 'your'. This latter use also occurs in our corpus, e.g., *Eindhoven, je winkels zijn leuk* 'Eindhoven, your shops are fun'.

addressed a place more than once, or that addressed more than one place, were duplicated to match the number of times a place was addressed, giving us a total of 812 utterances for analysis. We refer to these data as *spatio-temporal* addressees rather than *locations* or *places*, because the tweets did not only include locative addressees (e.g., Amsterdam), but also temporal ones (e.g., specific days, such as New Year's Day or Valentine's Day). That is, we use the term *spatio-temporal* to mean 'place and/or time'.

For comparison, we also constructed a control corpus containing tweets with human addressees, again using the TwiNL corpus (Tjong Kim Sang and Van den Bosch, 2013). The search process was the same as for the spatio-temporal addressees, except that these tweets started with a username preceded by the vocative marker @. This was done in order to maximize the chance that the human addressee was *not* fictive. We started with a selection of 20,000 tweets (10,000 from 2011 and 10,000 from 2015) and randomly selected 200 (100 from each year) for analysis. Whether the username of either the sender or receiver of the tweet belonged to a person (rather than a location or a company) was then checked manually. After exclusion of unusable tweets and duplication of tweets with more than one utterance starting with a human addressee, a total of 270 tweets remained for further analysis. An overview of all tweets is given in Table 1.

Table 1

Overview of the numbers of unique and duplicated tweets from both subcorpora.

Addressee type	Unique tweets	Duplicated tweets	Total utterances
Spatio-temporal	583	229	812
Human	198	72	270
<i>Total</i>	<i>781</i>	<i>301</i>	<i>1082</i>

3.2.2. Annotation

The analysis is limited to the *text* of the individual tweets: images and emojis used in the tweets, as well as replies to the tweets fall outside the scope of the current paper, and are therefore not included. For spatio-temporal addressees, we annotated for the type of entity addressed (e.g., city, country). We distinguished between 4 different types of entities: 'city' (e.g., Amsterdam); 'country' (e.g., Surinam), but also included regions or provinces (e.g., Normandy (France), Limburg (Netherlands) and islands (e.g., Crete)); 'event' (e.g., the music festival Lowlands); and 'other' (e.g., Schiphol Airport, and time points such as New Year's Day and Valentine's Day).

Twitter is used to convey users' personal feelings about their daily experiences (Zappavigna, 2017a, 2017b). As such, any tweet "implies some form of assessment, having been selected by a social media user as worthy of being presented to the social network, whether for criticism or praise" (Zappavigna, 2017b: 435). For both spatio-temporal and human addressees, we annotated the polarity of the message conveyed (positive, negative, or neutral). Note that polarity is not determined by the presence of a negation, but by what the speaker intends to say about the fictive addressee. For example, in (4), the reader addresses the event Lowlands with *niet normaal* 'extraordinary', lit. 'not normal'. Although in Dutch this may sound negative by itself, the intended evaluation here is clearly positive: 'what a great weekend you have given me'.

- (4) *Lowlands, je was weer fantastisch! Niet normaal, wat een topweekend heb jij mij gegeven. Tot volgend jaar! #LL11*
 'Lowlands, you were once again fantastic! (It's) extraordinary, what a great weekend you have given me. See you next year! #LL11'

We also annotated both corpora for locution. We distinguished between declaratives, imperatives, and interrogatives. For example, the clause starting with *Niet normaal* 'extraordinary' in (4) above is a (positive) declarative utterance. The clauses in boldface in (5) and (6) below are imperatives, a negative and a neutral one, respectively. An example of a (negative) interrogative clause is presented in (7) (boldface added).

- (5) *Schiphol, je bent onoverzichtelijk, **hou eens op.***
 'Schiphol, you are confusing, **cut it out.**'
 (6) *Apd je bent ver weg van h'wijk, **kom ff iets dichterbij alsjeblieft***
 'Apeldoorn you're so far away from Harderwijk, **please move a little closer.**'
 (7) *Nieuwegein je voelt niet meer als thuiskomen. **Wat is er gebeurd met je?***
 'Nieuwegein you don't feel like coming home anymore. **What happened to you?**'

Finally, for the annotation of illocutions in both corpora, we made use of a corpus-driven approach. That is, we made no a priori assumptions about the data, but instead formulated categories based on what we found. After annotating both corpora for illocution, we merged categories containing less than ten tweets into other existing categories. We did not merge any categories which were found for both spatio-temporal and human addressees. After that, we were left with 25 categories in total, 15 of which were present in both corpora. For an overview of all the different categories, see Table 2.

Table 2
Different categories found in the corpora for spatio-temporal and human addressees.

Illocution	Spatio-temporal addressee		Human addressee	
	N	% (within addressee type)	N	% (within addressee type)
Compliment	343	42.2%	22	8.1%
Expression of satisfaction	68	8.4%	4	1.5%
Complaint	45	5.5%	0	0.0%
Expression of affection	40	4.9%	13	4.8%
Comment	39	4.8%	44	16.3%
Elaboration	38	4.7%	9	3.3%
Greeting	31	3.8%	3	1.1%
Insult	28	3.4%	17	6.3%
Statement	24	3.0%	31	11.5%
Expression of disappointment	21	2.6%	0	0.0%
Reproach	21	2.6%	7	2.6%
Nuance	17	2.1%	2	0.7%
Remark	16	2.0%	5	1.9%
Announcement	15	1.8%	0	0.0%
Expression of gratitude	12	1.5%	3	1.1%
Expression of annoyance	11	1.4%	0	0.0%
Request	10	1.2%	0	0.0%
Promise	10	1.2%	3	1.1%
Desire	9	1.1%	3	1.1%
Expectation	5	0.6%	11	4.1%
Expression of surprise	0	0.0%	13	4.8%
Instruction	0	0.0%	13	4.8%
Suggestion	0	0.0%	13	4.8%
Question	0	0.0%	26	9.6%
Other	9	1.1%	28	10.4%
Total	812	100.0%	270	100.0%

For both locution and illocution, all tweets were annotated by two authors, independently of each other. Differences in annotation were resolved through discussion. Notoriously, speech acts are fuzzy concepts, and utterances may be vague or ambiguous as to their illocution. Jucker and Taavitsainen (2000: 69) give as an example the utterance *Do I hear a noise?*, which may be used by a teacher as a reprimand, directed to a violinist as an insult, in a noisy environment as an ironic statement, etc. Because illocutions tend to overlap, Jucker and Taavitsainen (2000) introduce the notion of *pragmatic space*, in order to be able to describe speech acts in relation to their neighbouring speech acts. For example, it is not always easy to distinguish insults from slurs, oaths, and swearing, because these illocutions share a pragmatic space (Jucker and Taavitsainen, 2000), or to distinguish compliments from congratulations, for the same reason (Placencia and Lower, 2017).

Distinguishing between a compliment and an expression of satisfaction could be difficult as well, but after discussion we decided that with the former, the speaker gives credit to the fictive addressee, whereas the latter focuses on the speaker and how they feel about their addressee. An example of what was coded as a compliment is in (8), an expression of satisfaction in (9), and an expression of affection in (10).

- (8) *Amsterdam je bent zo mooi.*
'Amsterdam, you are so pretty.'
- (9) *Amsterdam, je stelt nooit teleur.*
'Amsterdam, you never disappoint.'
- (10) *Defqon, je blijft het beste wat me ooit is overkomen en ik mis je echt heel erg.*
'Defqon, you remain the best thing that ever happened to me, and I really miss you a lot.'

An expression of affection can also contain a poetic ode to a certain place, such as in (11) below.

- (11) *Frankrijk, jij bent als Pasta voor mijn Italiaanse hart*
'France, you are like pasta to my Italian heart.'

On the negative side, (12) is an example of an expression of disappointment, (13) is a complaint, while (14) is considered an insult.

- (12) *Haarlem je stelt me zo erg teleur!*
'Haarlem, you really disappoint me!'
- (13) *Utrecht, je bent een vreselijke stad om in te rijden.*
'Utrecht, you are a horrible city to drive in.'
- (14) *Amsterdam, jij matige kutstad met je kuttige Leidseplein. JOE!*
'Amsterdam, you mediocre crap city with your crappy Leiden Square. BYE!'

3.3. Results

For the spatio-temporal addressees, we first determined which types of entities were addressed on the basis of the unique tweets ($n = 583$). Most tweets (387; 66.4%) addressed a city, 124 (21.3%) were directed at an event, countries were tweeted at 59 times (10.1%), and the remaining 13 tweets (2.2%) had an addressee we classified as 'other'.

Next, polarity was annotated for all utterances ($n = 812$ and $n = 270$ for spatio-temporal and human addressees, respectively). Liebrecht (2015) suggests that utterances directed to spatio-temporal addressees are either positive or negative, and rarely neutral. This is supported by our data. For spatio-temporal addressees, a large majority of the utterances was positive (572; 70.4%), followed by negative utterances (163; 20.1%). Neutral utterances only occurred 77 times (9.5%). By contrast, almost half of all utterances with human addressees were neutral (133; 49.3%). Positive and negative utterances occurred 91 (33.7%) and 46 (17.0%) times, respectively. Fig. 1 shows the number of utterance types directed to human and spatio-temporal addressees.

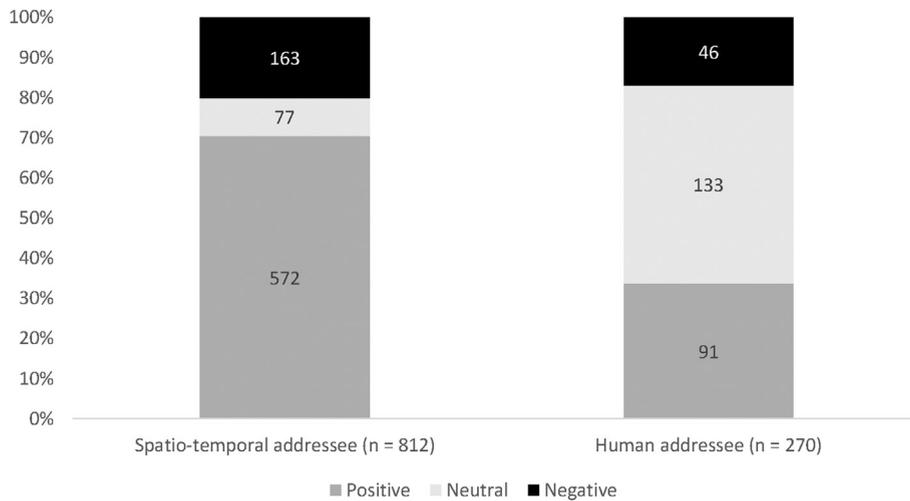


Fig. 1. Relative number of utterances directed to spatio-temporal and human addressees per polarity type.

Fig. 2 shows the number of utterance types directed to human and spatio-temporal addressees. Almost all utterances directed to spatio-temporal addressees were declaratives (793; 97.7%); both imperatives (7; 0.9%) and interrogatives (12; 1.5%) only occurred a handful of times. For human addressees, too, declaratives were the most frequent (224; 83%), followed at a distance by interrogatives (43; 15.9%) and imperatives (3; 1.1%).

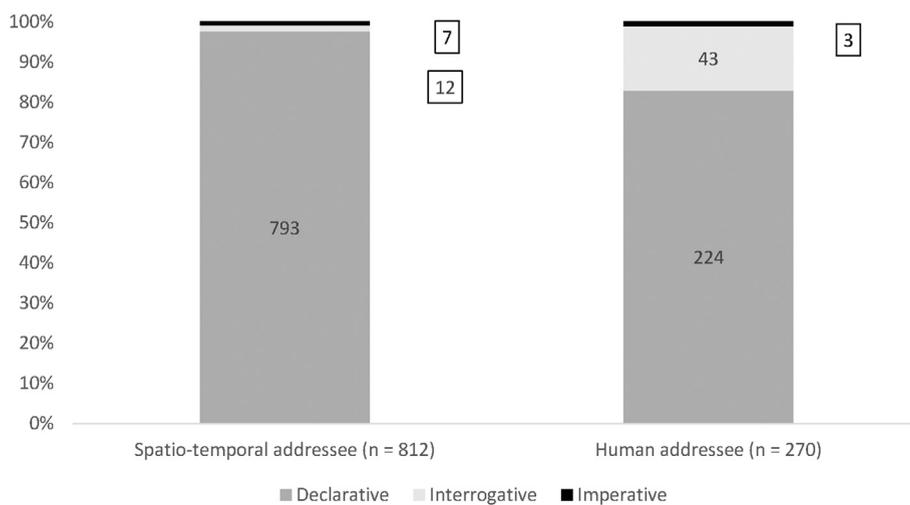


Fig. 2. Relative number of utterances directed to spatio-temporal and human addressees per locution type.

Fig. 3 shows the relative number of utterances directed to human and spatio-temporal addressees, with percentages within illocution type. What stands out the most in the illocutions is the large number of compliments directed to spatio-temporal addressees. Expressions of affection and satisfaction were less frequent but also much more often directed to spatio-temporal addressees than to human ones. This is consistent with the dominant positive polarity that was found in the tweets directed to spatio-temporal addressees.

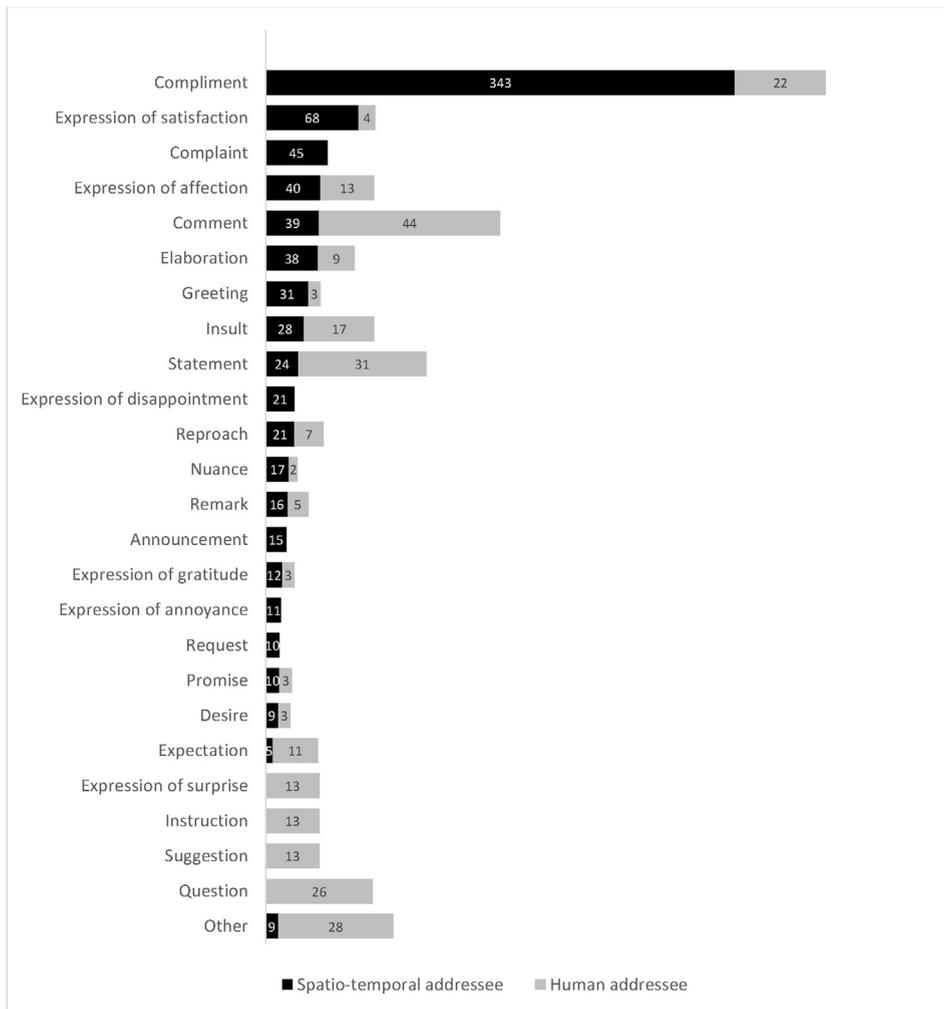


Fig. 3. Number of utterances directed to human and spatio-temporal addressees per illocution type (see also Table 2 above).

We can observe a few striking characteristics of spatio-temporal addressees compared to their human counterparts in our corpus. First, with respect to polarity, spatio-temporal addressees are more often than human addressees addressed positively. The fact that neutral utterances were least frequently attested for spatio-temporal addressees suggests that the messages generally convey a clear evaluation, either positive or negative but not neutral (Zappavigna, 2017b). In fact, we find that no less than 42 percent of the utterances with a spatio-temporal addressee were compliments. Second, with respect to locution, we find that while for both groups most utterances were declaratives, essentially interactive sentence types such as interrogatives and imperatives are more often used for human addressees than for spatio-temporal addressees. Overall, we can safely conclude that spatio-temporal addressees differ from ordinary human addressees in how they are addressed in tweets. The next section addresses the question how we can explain the use of spatio-temporal addressees in tweets. What is their communicative function?

4. Analysing the function of the construction [X, you are/were Y]

On the basis of our qualitative corpus results, we argue that the Dutch construction [X, you are/were Y] in which X is a spatio-temporal addressee, is a real *construction*, i.e., a conventionalized form-meaning pair in the sense of Goldberg (2003);

2006). As Goldberg (2006: 5) puts it, “[a]ny linguistic pattern is recognized as a construction as long as some aspect of its form or function is not strictly predictable from its component parts or from other constructions recognized to exist”. In this case, the construction arises as a result of the interaction between the meaning of the utterance and the properties of the medium on which it is uttered. Twitter users can use the construction to tell their audience about a recent experience they had, while at the same time evaluating said experience. Reference to this current or recent experience at the time or place indicated by the vocative is not overtly expressed, yet it is an essential meaning component of the construction.

We consider [X, you are/were Y] a prototypical (meso-)construction (Traugott, 2007) in that it includes a variety of distinct but similar-behaving constructions that are attested in our corpus. An example would be ‘Amsterdam, I love you’, in which the subject is not second but first person. We define the prototypical structure and interpretation of the construction in (15).

- (15) Structure: [X, you are/were Y] with X = spatio-temporal topic
 Interpretation: User is having/had a certain experience at X, the evaluation of which (positive or negative) follows from the content of the utterance.

The construction has a few notable advantages that can explain its relatively wide-spread and productive use in Dutch. Clearly, it is a short and distinct way to refer to a current or recent experience, which is evaluated by the actual content of the utterance. Another advantage of the construction is that it provides a somewhat modest way for on-line ‘bragging’. Introducing a fictive addressee and using a second person pronoun allows the updater to move the focus away from themselves and place it on the fictive addressee instead. In this way, an egocentric update that states how great an experience the updater had (e.g., ‘I had an amazing time in Amsterdam!’) can be turned into a mini-conversation that states how amazing the addressed location is (‘Amsterdam, you are amazing!’) while essentially still expressing the former message. This is confirmed by the fact that one way in which spatio-temporal addressees differed from human addressees in our corpus was the large number of compliments, expressions of satisfaction, and overall positive declaratives that were directed to them. In the remainder of this section, we will demonstrate how each of the ingredients of the construction contributes to making it suitable for its particular function on social media.

4.1. Spatio-temporal vocatives

Addressing places is, in itself, not new. Throughout history, cities have often been the subject of praise in songs and poems, and in some of these cases they are directly and explicitly addressed. A case in point is the following verse from Horace’s *Carmina* ‘Odes’ (book 4, poem 4, lines 37–40), in which Rome is addressed:

- (16) *Quid debeas, o Roma, Neronibus
 testis Metaurum flumen et Hasdrubal
 devictus et pulcher fugatis
 ille dies Latio tenebris*

‘How great thy debt to Nero’s race
 O Rome, let red Metaurus say
 Slain Hasdrubal, and victory’s grace
 First granted on that glorious day’³

The phrase *o Roma* ‘O Rome’ is a vocative, i.e., an overt expression of the addressee. This is also the case in the construction [X, you are/were Y], where X can be considered a vocative. Even though Dutch does not explicitly mark X as a vocative, its vocative function is confirmed by the use of the second person pronoun in the remainder of the construction. Not only cities but also other inanimate entities can be addressed in fictive interaction. Sullivan (2016) for example finds that artists may address an artwork, as in (17) and (18) (Sullivan, 2016: 96):

- (17) Mona. Why I no good at drawing you?
 (18) (...) painting, tell me your secrets.

In (17) the artist directs a question at an artwork she has just drawn, and calls it *Mona* (although it depicts “a dark brown-haired mafia guy” according to the artist’s own description), and in (18) the painting is simply addressed as *painting*. Note that the second person pronouns in (17) and (18) in fact require the addition of a vocative. Otherwise, the real addressees would not know who was fictively addressed. The rhetorical question in (17) as well as the imperative in (18) are considered fictive speech acts (Pascual, 2014: 40–41). Illocutions such as compliments or complaints are known to be multi-functional (cf. Aakhus and Aldrich, 2002). Complaints can for instance be used to seek commiseration, and compliments to express envy, or to ask for a compliment in return, just like giving advice can sometimes be interpreted as criticism and disagreement (Aakhus and Aldrich, 2002; Goldsmith and Fitch, 1997). Fictive apologies are ‘apologies’ for purely rhetorical purposes (Demeter, 2011),

³ Original text retrieved from <http://data.perseus.org/citations/urn:cts:latinLit:phi0893.phi001.perseus-lat1:4.4> Translation via <http://data.perseus.org/citations/urn:cts:latinLit:phi0893.phi001.perseus-eng1:4.4>.

and in many languages, greetings and politeness markers can be used in fictive interaction to express irritation, disagreement, or anger (Pascual, 2014: 44). Consider the following example from Pascual (2014: 29):

(19) I find that particularly ridiculous. I mean, *hello?* I have a Ph.D.

Greeting counts as “courteous recognition” of the addressee by the speaker (Searle, 1969: 66). In (19), however, the fictive greeting *hello?* is a speech act with a fictive addressee. The addressee of the greeting exists, but is not present at the moment of speaking. Moreover, the greeting is not interpreted as a courteous recognition of the fictive addressee, quite to the contrary. In fact, the speaker thus shows their opinion about the fictive addressee to the actual addressees who have turned into bystanders by the use of this fictive speech act.

The same could be said about fictively addressing places on Twitter. These tweets must start with an explicit vocative addressing the spatio-temporal addressee, because the actual addressees are the (imagined) readers, who are temporarily turned into bystanders. By using a place as a fictive addressee, the speaker can convey their opinion of this place to their audience. Illocutions directed to fictive spatio-temporal addressees enable Twitter users to share their personal experiences with the (imagined) readers of their updates. These personal experiences can be either positive or negative, as reflected in the content of the tweet. An example of the latter is shown in (20).

(20) *Genève, je komt nu officieel mn strot uit*
'Geneva, you have now officially made me sick.'

Vocatives overtly refer to the addressee. As for their syntax and pragmatics, they have been argued to be similar to topics (Portner, 2007). Whereas topics (i.e., ‘what the sentence is about’) are often arguments of the predicate, such as subjects or objects, they can have spatio-temporal referents as well (see e.g., Crasborn et al., 2009).

The spatio-temporal vocatives in the target construction can thus be understood as spatio-temporal topics. Yuan et al. (2013) study how spatio-temporal topics on Twitter can be determined on the basis of activity (what does a user do?), geographical location (where does an individual visit?) and time (when does a user visit a place for some activity?). Clearly, spatio-temporal addressees in tweets overtly represent such spatio-temporal topics in that they do not just refer to certain locations, but moreover to the user's experience at the time and place referred to.

Updates on social media – which are usually about something that the updater is doing, or something that is happening to them – are generally posted either while the event described in it is happening, or very shortly thereafter (Yuan et al., 2013). This allows the speaker to be less explicit in their update: An utterance such as ‘Amsterdam, you are amazing’ does not simply convey the information that is explicitly stated, namely that Amsterdam is amazing, it also implies that the speaker is in Amsterdam at the moment of updating, and, judging by the content of the utterance, is having a great time.

From this, it follows quite naturally that not only spatial but also temporal topics such as holidays can function as fictive addressees in our construction, as exemplified in (21) and (22):

(21) *Valentijnsdag, je was een bitch. Daarom nu maar B&J Cookie Dough eten in bed met eenfilmpje erbij.*
'Valentine's Day, you were a bitch. Therefore now eating B&J Cookie Dough in bed with a movie.'
(22) *#koningsdag, je was weer geweldig. Lang leve de koning, en welterusten.*
'King's Day, you were once again great. Long live the king, and goodnight.'

By addressing a spatio-temporal topic, the speaker assigns properties to it that do not necessarily relate to the location itself, but to the experience the speaker was having at that time or place: If they just had a fantastic time in Amsterdam, that becomes ‘Amsterdam, you were fantastic.’

4.2. Second person pronouns

On Twitter the default relationship between users is asymmetrical (Page, 2012). Because of the nature of the medium, ‘conversations’ on Twitter are usually one-sided. Although Twitter does have the function of *addressivity* (i.e., it allows for users to direct messages to other users by typing the other's username, cf. Honeycutt and Herring, 2009; Werry, 1996), utterances are very often updates directed to no one in particular (cf. Mulder, 2018; Page, 2014). These one-to-many interactions have a “conversationality [which] is simulated rather than dialogic” (Page, 2012: 194). After all, Twitter is used by individuals to present themselves online to a wider (real or imagined) audience. Because Twitter prompts its users to answer the question ‘What are you doing?’, it creates a stream of messages in which users report on their daily life experiences to their audience (Marwick and Boyd, 2010: 116).

Since respondents place ‘authenticity’ on Twitter in direct opposition to ‘self-promotion’, Marwick and Boyd, 2010: 128) assume “an intrinsic conflict between self-promotion and the ability to connect with others on a deeply personal or intimate level”. It would be preferred, then, not to address the imagined audience directly on Twitter. Obviously, a place can only be a fictive addressee, not a real one. It follows that the message is intended for the imagined audience, not for a specific addressee. The introduction of a fictive specific addressee thus provides an excellent opportunity to address the imagined audience without referring to them as audience, while still using a second person pronoun.

In conversation first and second person pronouns are used to refer to the two interlocutors involved, i.e., the speaker and the addressee. The use of a second person pronoun when it does not directly refer to the actual addressee can be a linguistic strategy applied by the speaker to evoke empathy or identification in the addressee (cf. Malamud, 2012; de Hoop and Tarenskeen, 2015; de Hoop and Hogeweg, 2014). Wechsler (2010) argues that a second person pronoun always invites the addressee to self-ascribe the property of being *you*, even when *you* does not refer to the actual addressee. It has been shown that the use of a second person pronoun has a stronger effect on readers' engagement and identification than the use of a first or third person pronoun (Brunyé et al., 2011). We expect this also to happen when a second person pronoun is directed to a spatio-temporal addressee, because "[d]espite their different references, all of these uses [of *you*] play on our instinctive reaction to think *me* when we hear *you*, and to feel personally concerned by the textual utterance" (Ryan, 2001: 138). Thus, also in a tweet that is fictively addressed to a place, the use of a second person pronoun can be hypothesized to lead to a higher degree of empathy or identification in the readers of the tweet than a third or first person statement would.

The question is whether the second person pronoun in our target construction indeed refers to the spatio-temporal addressee as we have proposed. One might wonder whether it may rather refer to the people who live at X or who are/were there at the time. We have evidence that the second person pronoun refers to the spatio-temporal addressee itself and not to the people being there. We found several tweets in which these people are referred to separately, in which case it is clear that the spatio-temporal topic and the people who live there cannot be co-referential. Two examples serve to illustrate:

- (23) *Amsterdam, je was super gaaf! Vooral de mensen die in jouw grachtenpanden wonen:D*
'Amsterdam, you[singular] were super cool! Especially the people who live in your[singular] canal houses:D'
- (24) *EMMEN je bent lelijk en je mensen ook!! JULLIE STINKEN*
'EMMEN you[singular] are ugly and your[singular] people too!! YOU[plural] STINK'

In (23) a distinction is made between *je* 'you [singular]' addressing the city Amsterdam, and the *mensen* 'people' who live in *jouw grachtenpanden* 'your [singular] canal houses'. In (24), not only the spatio-temporal addressee Emmen is called ugly, but also *je mensen* 'your [singular] people', i.e., the people who live there ('your people'). The second sentence addresses these people themselves and then the plural second person plural pronoun *jullie* 'you [plural]' is used, as expected. We conclude that it is indeed the spatio-temporal topic that is addressed, and not the people who live there. However, the question arises to what extent the spatio-temporal addressee has been personified. Is it syntactically and semantically treated as human? In the next subsection we argue it is not.

4.3. Beyond personification

The locution directed to the spatio-temporal addressees is almost always a declarative, which is expected since these declaratives are used to describe and evaluate experiences, and not to actually interact with the spatio-temporal addressee. Nevertheless, addressing places can go beyond simple declaratives about (dis)liking them, and involve other speech acts, as exemplified in (25) and (26).

- (25) *Alkmaar, je bent er nog, thnx for waiting ly*
'Alkmaar, you're still here, thanks for waiting love you'
- (26) *Amsterdam, je werkt vandaag behoorlijk op mijn zenuwen! Zullen we afspreken dat we vanaf vammiddag lief voor elkaar zijn?*
'Amsterdam, you're really getting on my nerves today! Let's agree to be nice to each other this afternoon, okay?'

These speech acts in (25) and (26) are not real. For example, for (26) to count as a proper request, it would not only be necessary that the propositional content refers to an action that the speaker would like the addressee to perform, it would also have as a preparatory rule that the speaker believes the addressee to be able to carry out the required action (Searle 1969: 66). Since the speaker knows that a city is not able to fulfil a request, it seems that in this case the spatio-temporal addressee is fully personified.

However, while assigned certain 'human' qualities by getting promoted from the subject of a conversation to a vocative, the spatio-temporal topic in the target construction retains its spatio-temporal qualities. The spatio-temporal nature of the addressee is of utmost importance to make the link between the construction and its intended reference to an experience upon which the speaker wants to reflect. This is clearly illustrated by the following examples (boldface added):

- (27) *Tilburg, jij gaat mij nog vaak zien. Want ik ga communicatie **in jou** studeren. YESSSSSSSS*
'Tilburg, you haven't seen the last of me yet. Because I'm going to study Communication **in you**. YES!'
- (28) *Amsterdam, je was weer eens heerlijk. Ik wil **in je** wonen.*
'Amsterdam, you were once again lovely. I want to live **in you**.'

In (27) and (28), while the spatio-temporal addressees fulfil the subject role in the first part of the tweet, in the second part they are used as part of a locative adverbial, functioning not as a participant in, but indeed as the location of the expressed event. This may lead to rather awkward phrases, such as in (27) and (28) above, or even worse (29) and (30):

- (29) *Lowlands je bent fijn, het is 06:00 uur en ik ben klaarwakker **op je**.*

'Lowlands you're great. It's 6 AM and I am wide awake **on you**.'

- (30) *België, je was lief voor me vandaag! In alle opzichten. Fijn **in je** geweest te zijn.*
'Belgium, you were nice to me today! In every respect. Nice to have been **in you**.'

Strikingly, this particular use of the spatio-temporal addressees may even result in a construction that would normally be considered ungrammatical. The verb *regenen* 'rain' is an aivalent verb, which means that under normal circumstances, it can only take a dummy subject *het* 'it'. Indeed, the sentence **Amsterdam regent* 'Amsterdam is raining' is considered ungrammatical in Dutch: it cannot express that it is currently raining in Amsterdam. Sentences like **hij regent* 'he is raining', **we regenen* 'we are raining', and **je regent* 'you are raining' would be equally ungrammatical. Yet, utterances such as the latter were relatively frequently attested in our corpus. Four examples are given in (31)–(34):

- (31) *Mysteryland, je regent. Niet cool.*
'Mysteryland, you're raining. Not cool.'
- (32) *Roffa, je regent er weer heerlijk op los.*
'Rotterdam, you are deliciously raining very hard.'
- (33) *Venlo, je regent en je bussen rijden niet. Je doet er alles aan om me hier niet meer thuis te voelen. #geefmijmaarAmsterdam*
'Venlo, you are raining down and the buses are not driving. You're doing anything to not make me feel at home here anymore. #IpreferAmsterdam'
- (34) *Tilburg, je bent de mooiste al niet, en dan ga je ook nog lopen regenen. Niet chill.*
'Tilburg, you aren't the prettiest to start with, and then you start raining as well. Not pleasant.'

Grammatical sentences such as 'It's raining in Tilburg' would describe the situation, but would not have the additional effect of reporting and evaluating the speaker's first-hand experience. While *je regent* 'you are raining' is ungrammatical in Dutch, it can be said to Tilburg as a fictive spatio-temporal addressee. This provides further evidence that the spatio-temporal addressee has not been fully personified, as a person cannot rain. The addressee still denotes the time and space *X* at which the speaker is having or had the experience they are reflecting on. If a construction is used and accepted in a certain context, it puts both internal and external pressure on the grammar to accommodate to it (cf. Bever et al., 1976). Dutch grammar is sufficiently flexible to allow for an otherwise ungrammatical phrase such as *je regent* 'you are raining' within the context of this particular construction. The tweet in (34) just means that the speaker is having an unpleasant experience in Tilburg, because first of all, Tilburg is ugly, and on top of that it has started to rain. The fictive addressee *X* provides the spatio-temporal setting of the first-hand current or recent experience that the speaker reports on and evaluates by using the construction [*X*, *you are/were Y*].

5. Conclusion

Using Twitter as a data source we investigated the characteristics and function of messages fictively directed to places or events, such as "Amsterdam, you are fantastic!" or "Valentine's Day, you are a bitch". This type of fictive interaction (Pascual, 2014) offers users the opportunity to evaluate and share their first-hand experiences on social media, thus stimulating social cohesion (Zappavigna, 2017b). The aim of this study was to achieve a better understanding of the various linguistic factors involved in the construction (Goldberg, 2006).

We have argued that a user's intention, when addressing a spatio-temporal topic, is to tell an imagined audience about an experience they are having or recently had at a place (e.g., Amsterdam) or during a time or event (e.g., Valentine's Day) referred to by the vocative. Comparing spatio-temporal with human addressees in this type of tweets, we have seen that they behave quite differently. The construction with a spatio-temporal addressee mostly contains an unequivocally positive or negative evaluation, such as a compliment ("you are fantastic") or an insult ("you are a bitch"), unlike similar utterances with a human addressee, which are often neutral. We have argued that the illocution of the construction, the spatio-temporal vocative, and the second person pronoun, all contribute to the function of evaluating a first-hand experience at a certain place and time. Although evaluation of a first-hand experience is the core meaning of the construction, the experience itself is not directly referred to. The construction thus provides a short, modest, and unambiguous way to share a personal experience with others.

While the spatio-temporal addressee is personified to a certain degree, its spatio-temporal characteristics remain crucial, as they provide the background for the reported experience. Strikingly, we have observed that this even leads to clauses that are plainly ungrammatical otherwise, such as "Amsterdam, you're raining!" This development undeniably demonstrates that grammaticality is a relative notion, highly dependent on its context of use.

Our finding prompts several routes for further investigation. First of all, in which contexts does the phenomenon occur? We might attempt to identify factors that enable or restrict it, by searching for correlations with, e.g., author characteristics (age, gender, community participation) or register markers (orthography, use of emoji, use of intensifiers). Is the imagined audience restricted to spatio-temporal entities? Here we might check whether any hashtags occur in the vocative position and classify these into animate entities, spatio-temporal entities and others. But we should also look beyond Dutch. Does this phenomenon occur in other languages as well and, if so, is the occurrence correlated with specific language families? This question will be harder to answer, as data collection is not always trivial. Finally, and potentially most interesting: having concluded that grammar is (even) more flexible in social media text, which other constructions may we find there that are

deemed ungrammatical in standard language use? Here, we cannot provide suggestions as to an approach, but will leave it to any interested and creative readers.

Using social media offers unprecedented opportunities for evaluating experiences promptly. Apparently, grammar does not seem to constrain this possibility, but rather enables it. It appears flexible enough to comply with spatio-temporal addressees setting the scene for evaluating users' first-hand experiences. The human ability and creativity to adjust grammar to the requirements of a changing digital environment, is an amazing cognitive feat.

Declaration of competing interest

None.

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