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Reference and Deixis in Internet Forums

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Zásady pro vypracování

Cílem diplomové práce je prostudovat a zhodnotit výskyt různých kategorií a prostředků reference v diskurzu internetového fóra. Student nejprve charakterizuje diskurz internetového fóra, jeho funkce a užití jazykových prostředků mluveného jazyka. Dále na základě relevantní odborné literatury popíše formální prostředky reference z hlediska sémantického a pragmatického, vymezí endoforickou a exoforickou referenci, detailně se bude soustředit na deixi a její kategorizaci. Následně provede analýzu korpusu vybraných příspěvků s cílem zmapovat kontexty výskytu referenčních výrazů, zhodnotit jejich interpretace z pohledu adresáta a objasnit jejich vztah k mimojazykovým okolnostem (situační deixe) nebo k předcházejícím/následujícím složkám komunikace (kontextová deixe). Na závěr shrne a vysvětlí užití zkoumaných prostředků reference z pohledu textové koheze a s ohledem na aktuální komunikační situaci internetového fóra.

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ANNOTATION

Although deictic expressions are frequently studied interdisciplinarily, a comprehensive linguistic analysis dealing with deixis on internet forums is lacking. Accordingly, this master thesis aims to explore deictic and anaphoric reference on selected discussion forums. In the first part of this paper, the essential theoretical framework for the subsequent analysis is proposed. Afterwards, in the second part, both quantitative and qualitative corpus-based analysis of deictic and non-deictic anaphoric expressions is carried out to explore their functions and patterns of use on selected online forums.

KEYWORDS:

deixis, anaphora, reference, forum, internet, linguistics

ANOTACE

Ačkoli jsou deiktické výrazy často předmětem mezioborových výzkumů, komplexní lingvistická analýza deixe v registru internetového fóra chybí. Z toho důvodu si tato diplomová práce klade za cíl prozkoumat prostředky deiktické a anaforické reference na vybraných internetových fórech. V první části je vymezen nezbytný teoretický rámec pro pozdější analýzu. Ve druhé části je pak provedena samotná analýza deiktických a anaforických výrazů na základě vlastního korpusu, přičemž výzkum je nejen kvantitativní, ale i kvalitativní, jelikož je výskyt výrazů interpretován s ohledem na jejich funkci v kontextu vybraných diskuzních fór.

KLÍČOVÁ SLOVA:

deixe, anafora, reference, fórum, internet, lingvistika

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Introduction

The ability to refer and direct the attention of other people to some entities, both gesturally and verbally, seems to be an innate foundation of every natural language. Expressions such as *this* or *there* seem to pose one of the most frequently used items of everyone's lexicon. These so-called *deictic expressions*, although by themselves carrying little intrinsic meaning, communicate a lot in the actual speech event in which they are uttered and thus pose a fascinating object to study. Indeed, they have been interdisciplinarily studied by psychologists, linguists and philosophers. However, as of today, the comprehensive linguistic analysis of deixis in the register of online discussion forums is lacking.

For this reason, the main aim of this thesis is to study deixis as found on selected internet forums. The attention will be devoted mainly to deixis as a means of exophoric reference. Additionally, non-deictic anaphoric uses of traditionally deictic expressions will be investigated to inspect their distribution in comparison to deixis. In the analysis, quantitative measurements will be presented first; afterwards, the observations concerning patterns of use will be commented upon in more detail.

Regarding its structure, this thesis is traditionally divided into two main segments, i.e. the theoretical and analytical part. In the first part, the necessary theoretical underpinning for deixis, anaphora and forum register is introduced based on the extensive study of relevant literature. Afterwards, the attention will be devoted to the case-study of selected forum threads, focusing on deictic and non-deictic anaphoric expressions.

1. Deictic Reference

In this first major chapter of the thesis, the attention will be paid to deictic reference, and the essential theoretical framework for the subsequent analysis will be provided. First, the general concept of deixis should be described, and then the attention will be devoted to specific realisations of deictic reference in English.

1.1. General Remarks on Deixis

It seems that every natural language employs its means of referring to entities located in the vicinity of speakers, facilitating their communication in various contexts. In linguistics, these are traditionally called *deictic expressions* or *indexicals*. These expressions, such as demonstratives *this* and *that* or *here* and *there* appear to be linguistic universals, though in different forms, found in all languages (Čermák 2000, 115). Their most salient feature is that they are, as a rule, somewhat vague in their semantic meaning and highly dependent on the shared context among the participants of the speech event (Yule 1996, 9). In this regard, Crystal defines deixis as:

A term used in linguistic theory to subsume those features of language which refer directly to the personal, temporal or locational characteristics of the situation within which an utterance takes place, whose meaning is thus relative to that situation (Crystal 2008, 133).

In other words, although deictic expressions have some internal semantic meaning they denote, like demonstratives *this* and *that* carry the notion of proximity and distality, one cannot fully decipher their referential use without knowing the context of the utterance. For illustration, I propose the following example (1), showing indexicals *this* and *there* as used in everyday face-to-face interaction between two speakers.

(1) Put this there.

Without knowing the situational context in which this imperative is used, one is not able to interpret the given proposition because *this* can stand for many different entities and *there* can refer to various locations in the physical space occupied by speakers.

It appears that such deictic acts, both verbal and gestural, are the most basic realisations of the human language. According to Clark and Diessel, it has been observed that indexicals in the form of demonstratives are one of the first non-content words to be used by children, typically accompanied by pointing (Clark 1978, 95; Diessel 2006, 471–472). At the same time,

demonstratives remain preserved in aphasic patients, even when other items of their mental lexicon are barely accessible (Flanderková 2019, 95; Lesser and Milroy 2014, 110). This suggests that deixis, or the ability to employ acts of reference in general, is a complex phenomenon ingrained in the human cognition, making a solid foundation of every human language. In this regard, it should be noticed that deixis is a type of behaviour realised not only by verbal means but also by various gestures, gaze-following acts and pointing (see Appendix 3 for an overview of non-verbal deixis).

The concept of deixis was thoroughly studied by a German psychologist Karl Bühler. In his now traditional theory, he postulates that the deictic centre of the utterance (what he calls *origo*) resides, by default, in speakers themselves. As a consequence, this centre is, for the most part, anchored in *I-here-now* position. That is, when people speak, they consider themselves a central ego from which they assess personal, spatial and temporal relations. (Bühler 2011, 19; Fricke 2003, 71) The concept of the deictic centre is nicely exemplified by Fricke (2014, 1810) on the situation in which the speaker wishes to instruct the addressee about the location of the pliers (see Figure 1 below). Three possible utterances might appear:

- (a) The pliers are in front of me.
- (b) The pliers are behind the car.
- (c) The pliers are to the left of the car.

Although all three utterances are equally correct in this situation, the speaker would likely prefer the ego-centric viewpoint, i.e. the *origo* would be embodied in the speaker as seen in utterances (a) or (c).

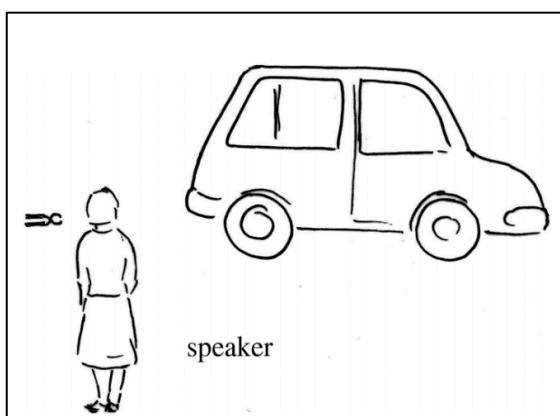


Figure 1. Scheme of deictic reference (Fricke 2014, 1810, figure 136.2)

Based on the previous descriptions, it might be concluded that deictic expressions are realisations of exophoric reference when certain linguistic elements, vague in their intrinsic semantic meaning, refer to entities in the extralinguistic reality as represented by the physical world. Only when the connection between the expression and the object they denote is accomplished, they become fully meaningful (Halliday and Hassan 1976, 30; Wales 1996, 44). Accordingly, they are heavily dependent on the context of the utterance in which they are employed and must be thus contrasted with endophoric anaphora, retrieving its referents solely from the universe of the text (anaphora will be scrutinised in Chapter 2).

In the following chapters, the necessary theoretical framework concerning verbal deixis in English will be investigated on account of the subsequent analysis. First, the general categorisation of deixis based on context dependency and distance will be outlined, and then its semantic categories encoding various dimension of reference will be inspected. For the additional chapter on non-verbal deixis, see Appendix 3.

1.2. Gestural and Symbolic Deixis

The most general categorisation of deixis can be made based on its context-dependency. Two basic types may be distinguished according to the extent of the context needed for their effortless interpretation, i.e. *gestural* and *symbolic*. Gestural deixis is interpretable only in the immediate physical context in which the utterance takes place and is, as the term suggests, frequently accompanied by a gesture of some kind. Symbolic use, on the other hand, involves just the general knowledge of spatio-temporal relations (Cruse 2000 324–325; Fillmore 1975, 274; Huang 2014, 172; Levinson 1983, 65). To elucidate the difference, I propose sentences (1) and (2).

(1) I love this place. (said when relaxing on the beach)

(2) Look, what is this? (pointing to strange-looking flower)

The first utterance would be typically used without acts of pointing since *this* refers to a place where participants are in general. Nevertheless, the second utterance would require, as a rule, at least some gestural support, for *this* implies its reference to a specific flower which must be brought to the attention of the addressee.

Concerning the analysis, here it might be concluded that the asynchronous non-face-to-face communication as occurs on the internet forums would not typically engender the gestural use

of deictics. Accordingly, the category of gestural and symbolic uses will not be centrally distinguished in the quantitative analysis.

1.3. Proximal and Distal Deixis

In parallel with semantic categories of deixis, which will be explored in the following chapters, it is possible to classify deictic expressions from the viewpoint of distance. In English, there is a dichotomic concept, dividing deictics into *proximal*, anchored in the egocentric position near the speaker, i.e. *I, here, now*; and *distal*, located outside the deictic centre and thus away from the speaker, i.e. *you, there, then* (Levinson 1983, 62; Stapleton 2017, 132; Yule 1996, 9). This dichotomy is, to some extent, applicable to all semantic categories of deixis. The only exception makes discourse deixis which is frequently indeterminate as it operates inside the text. The principle of distance would be brought up again when dealing with specific deictics in more detail.

1.4. Semantic Categories of Deixis

Stemming from the above-mentioned Bühlerian theory of deixis, speakers intuitively situate the deictic centre to the egocentric position, located in the proximal points of personal, spatial and time dimensions (i.e. *I, now* and *here*). Dylgjeri and Kazazi explain that, consequently, three basic categories of *person, temporal* and *spatial* deixis can be distinguished (Dylgjeri and Kazazi 2013, 90). *Person deixis* identifies participants of a speech event, i.e. the speaker, addressee and possibly others, by employing the grammatical category of person in personal pronouns and their predicate agreements. Next, *temporal deixis* (also frequently called *time deixis*) deals with the time at which communication takes place, regarding the relationship between the coding and the receiving time of the utterance. As a result, it is realised grammatically by tense and lexically mainly by various adverbs of time. Lastly, *spatial deixis* (also known as *space deixis* or *place deixis*) regards the relative location of the speaker and entities in the physical space. In English, such spatial relationships are realised by demonstratives, adverbs of place and motion verbs.

Apart from those somewhat traditionally acclaimed, other subcategories of *social, discourse* and *emotional* deixis can be further identified (González-Romero 2005, 262). *Social deixis* concerns signalling social relationships relative to participants' roles in a speech act. In English, it subsumes honorifics, titles of address and various kinship terms, including colloquial familiarisers. In this thesis, social deixis will be dealt with as a subcategory of person deixis as

it is typically realised by vocatives. Next, *emotional deixis* (sometimes called *empathetic* or *inner deixis*) operates as a subcategory of spatial deixis when demonstratives *this* and *that* signal emotional closeness or distance from a particular entity. The last and perhaps the most controversial category is that of *discourse deixis* (also called *textual deixis*) which concerns expressions referring to other portions of the discourse, including the utterance itself. Given its inherently endophoric nature, the distinction from traditional anaphora is a subject to endless discussions. Therefore, the possible contrast between the two will be specified in the separate chapter. I propose Figure 2 below for the overview of deixis in English; note that each category will be discussed separately in more detail.

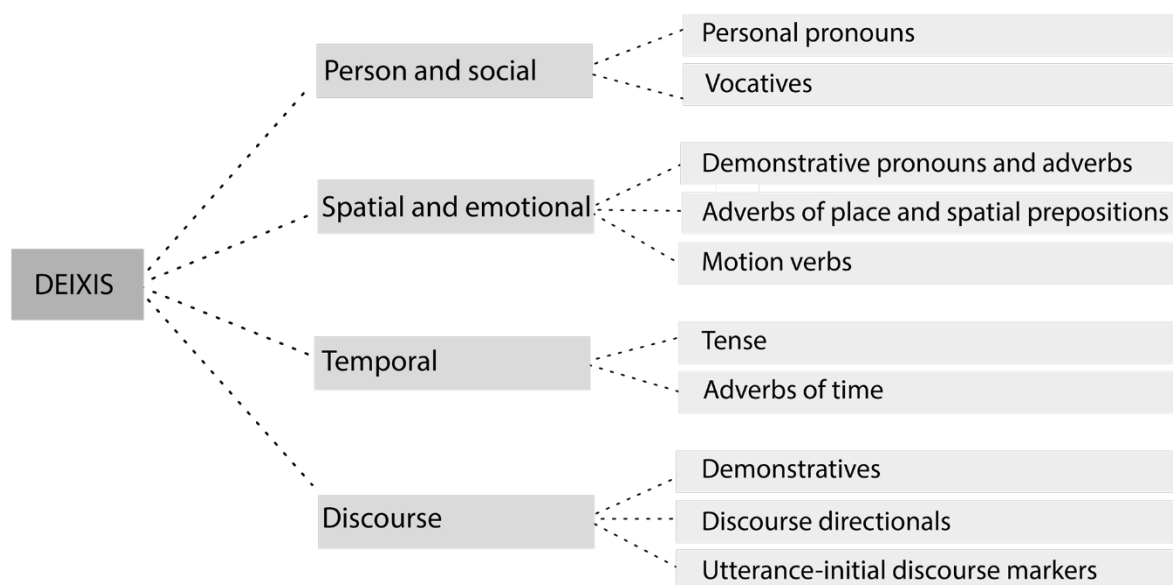


Figure 2. Deixis in English

From the viewpoint of modern linguistics, all forenamed categories of deixis are nowadays considered traditional. In this regard, Diessel proposes a different, more general categorisation. He asserts that one might categorise deictic expressions into two broad groups – *participant deixis* and *object deixis*. He elucidates that “participant deixis concerns deictic phenomena related to the speech participants, whereas object deixis concerns deictic phenomena that involve a referential link to elements of the situational or discourse context.” (Diessel 2019, 472–489) That said, upon a closer look, it is apparent that participant deixis would subsume traditional categories of person and social deixis, whereas object deixis would involve temporal, spatial and discourse categories. In this regard, the analysis will utilise the traditional semantic framework. The most fundamental theoretical preliminaries concerning specific deictic categories will now be presented.

1.4.1. Person and Social Deixis

The first category to describe is that of person and its subcategory of social deixis. As González-Romero explains, these deal with identifying direct participants of the speech event, as well as other people referred to in the utterance (González-Romero 2005, 260). Huang explains that in English, person deixis is realised by the grammatical category of person as manifested in personal pronouns (along with their predicate agreements); social deixis is then palpable in vocatives (Huang 2014, 174). Both will be commented upon in the following chapters.

1.4.1.1. Personal Pronouns

Personal pronouns are likely the most frequent deictic expressions in every-day conversations, not only in English but also in other languages. Mursaliyeva offers that all languages distinguish the first-person pronoun for identification of the speaker and the second-person pronoun for the addressee. Besides, the preponderance of languages, though not all, also distinguishes a third person to refer to entities outside the speaker-addressee pair. (Mursaliyeva 2016, 208) Quirk, Greenbaum, Leech and Svartvik (1985, 335) allege that apart from cases, English personal pronouns show grammatical categories of person, number and gender. These will now be examined from the viewpoint of deixis. For an overview of the English system of pronouns, see Table 1 below.

Number	Person	Nominative	Accusative	Possessive
Singular	1 st person	I	me	my, mine
	2 nd person	you	you	your, yours
	3 rd person	he, she, it	him, her, it	his, hers, its
Plural	1 st person	we	us	our, ours
	2 nd person	you (plural)	you (plural)	your, yours
	3 rd person	they	them	their, theirs

Table 1. System of personal pronouns in English

Regarding deixis, the category of the utmost significance is that of person. Generally, English personal pronouns operate in the three-way distinction; first-person grammatically refers to the speaker, second-person to the addressee and third-person to other participants in a speech event who are not the part of the speaker-addressee pair (Cruse 2000, 319–320; Culpeper and Haugh 2014, 23; Sugiharto 2004, 141–142). In this connection, Lyons (1977, 638) explains the origin of this person categorisation. He asserts that this traditional three-way distinction emanates

from the metaphorical association between the speech event and drama act as propounded by old Greek linguists. This act happens regularly in conversation, in which the first and second person constitute the pivotal roles, whereas the third person is not directly participating. The speaker proximally identified as *I* regularly switches the role with the addressee distally identified as *you* in the proceeding conversation.¹ In this respect, given the analytical nature of English, first and second-person pronouns happen to be the most frequent deictic expressions, grammatically identifying participants of the speech event. Indeed, based on corpus studies, *I* and *you* form the second and third most frequent words in spoken English, respectively (Leech, Rayson and Wilson 2001, 144).

The next grammatical category of personal pronouns is that of number. From the viewpoint of deixis in English, it is significant mainly for theclusivity of the first-person plural. As Clair and Cysouw put it, modern English is a language with no formal distinction between inclusive and exclusive first-person plural (Clair 1973, 43; Cysouw 2013). This means that first-person plural (*we/us*) can refer either inclusively to both the speaker and addressee or exclusively to the speaker and others with the addressee's exclusion. For illustration, I propose examples (3) and (4) below. In (3), inclusive first-person plural *we* would most naturally mean *me and you* (including the addressee). On the other hand, in (4), the exclusive first-person plural *we* means *me and others with me, without you* (excluding the addressee).

(3) What will we do tonight?

(4) We warn you not to do it.

Interestingly, Fløttum, Dahl and Kinn describe that some 'let'-imperatives can be interpreted as either inclusive or exclusive based on their contracted forms. They explicate that the contracted form of *us* in *let's* makes the meaning inclusive, whereas the uncontracted form is frequently viewed as exclusive. (Fløttum, Dahl and Kinn 2006, 170) It might be concluded that given the indifferent forms of the first-person plural *we*, the context remains crucial for the correct interpretation. Although as stated above, contracted and uncontracted forms may conventionally reveal the inclusive/exclusive meaning, respectively.

Lastly, I should at least briefly comment on gender, in English shown only in third-person personal pronouns. As Dušková explains, it is essential to highlight that gender in English is primarily natural (or semantical) (Dušková 2012, 82–83). From the viewpoint of deixis, this

¹ For this reason, pronouns *I* and *you* are sometimes called *shifters* (Hirschová 2013, 62).

natural gender allows English third-person pronouns to disclose whether the referent is male (*he*), female (*she*) or further unspecified/non-human (*it*). Therefore, Lyons calls third-person pronouns impure deictics, for they reveal additional non-deictic information about their referent (Lyons 1995, 307). However, as Kroeger points out, third-person pronouns are most usually anaphoric as they refer to nominal elements already introduced in the discourse (Kroeger 2019, 18). This is especially valid for the written mode of communication as appears on the internet forums. For this reason, anaphoric non-deictic uses of pronouns will be treated separately in Chapter 3, dealing with endophoric reference.

1.4.1.2. Vocatives

Person and especially social deixis is further accomplished by vocatives which Schaden defines as “nominal elements referring to the addressee(s) of a sentence“ (Schaden 2010, 176). Given such a vague definition, it is of vital importance to accentuate the actual difference between the use of previously described pronoun *you* and other vocative phrases. Downing explains, that although vocatives are nominal phrases referring to the addressee, they do not form parts of the predicate arguments and are prosodically marked by a different intonation contour (Downing 1969). That is, vocatives stay outside of the intonation patterns of adjacent structures as they are used to capture or further maintain someone’s attention. In this regard, based on their function in the utterance, Zwicky divides vocatives into two subcategories, i.e. *calls* and *addresses*. Calls, also sometimes referred to as *summonses*, are used to attract addressees’ attention. By contrast, addresses serve to “maintain or emphasise the contact between the speaker and the addressee.” (Zwicky 1974, 787) For a better explanation, I offer examples (6) and (7), showing calls and addresses, respectively. Example (7) is taken from the thesis corpus and will be brought up again in the analysis.

(6) Hey Joe, do you think I’m ugly? (call)

(7) Wow tought mine was high bro. (address)

It can be seen in the examples above that, as Zwicky points out, vocative noun phrases are frequently marked for politeness, intimacy, status, or role relations between the speaker and the addressee (Zwicky 1974, 796). Consequently, Marmaridou puts forward that such social deictic function should be described within the category of person deixis because both frequently co-occur and sharp boundaries between the two could be barely drawn (Marmaridou 2000, 74–

75). In the analysis, I will adopt a similar approach; personal pronouns will be treated as person deictic and vocative expressions as social deictic.

Now, in this part, social deixis will be addressed separately to provide a brief theoretical framework. First, a general definition should be given. As Levinson explains, social deixis is concerned with “encoding of social distinctions that are relative to participant-roles, particularly aspects of the social relationship holding between speaker and addressee(s) or speaker and some referent” (Levinson 1983, 63). In other words, one person can be addressed as *Mr Brown* in one situation, then as *sweetie* in another and even with some derogatory terms in the next. The way social deixis works vary among languages. Yet, as Huang explains, it generally regards information about social class, age, kin relationships, sex, age, ethnic class or even profession of the referent (Huang 2014, 208). Culpeper and Haugh further specify that in present-day English, they include a variety of terms, such as first names (*John*) surnames and titles (*Mr Green*), kinship terms (*daddy*), endearments (*sweetie*), familiarisers (*bro*) and honorifics (*sir*) (Culpeper and Haugh 2014, 25–26). Of course, their degree of formality and subsequent patterns of use differ significantly. Leech observes that typically, honorifics and titled surnames are considered highly formal and are thus used to address strangers and people with higher relative status. In contrast, their opposites, i.e. first names, familiarisers, endearments and kinship terms, regularly address friends and family members, including members of specific tight-knit communities. (Leech 1999, 110–112)

Regarding the forum discourse, it appears that familiarisers and possibly other colloquial expressions would significantly prevail over other social deictics. Given the informal and casual style of online forums, other honorifics are not expected to occur as participants are, as a rule, of the same relative status. Additionally, as the forum layout itself frequently clarifies who is being addressed, the gestural use of vocatives in the form of utterance-initial calls is not likely to be observed either. Instead, parenthetical addresses would be utilised to maintain the attention of specific addressees or forum users in general.

Having outlined the most salient points concerning person and social deixis, I should now proceed to a description of temporal deixis.

1.4.2. Temporal Deixis

Temporal deixis operates in the dimension of time and shows the relation between the time anchorage of the utterance and a deictic centre. Huang explains that deictic temporal relations

are realised both grammatically, by verbal tense, and lexically, mainly by adverbs of time (Huang 2014, 183). Given its limited space, this thesis will focus only on the lexical means.

However, first and foremost, the distinction must be made between deictic and non-deictic time reference. Lyons and Yule claim that non-deictic temporal system concerns the use of calendar and clock time (Lyons 1977, 679; Yule 1996, 14). These involve dates (e.g. *22nd of November, 1963*); parts of the day used without deictic premodification (e.g. *morning, noon, evening, sunset*); or exact references to clock time (e.g. *at 6 pm*). The difference between deictic and non-deictic temporal reference is illustrated in examples (10) and (11) taken from the thesis corpus.

(10) I'm up till midnight at the latest and still wake up at 6am ...no alarm needed.

(11) I was spending £2 a day on fresh strawberries, now I buy frozen blackberries and raspberries instead.

In (10), the addressee need not know the exact context of the utterance to interpret its full meaning as *6 am* is an *absolute time reference*. In those expressions where exact calendar dates are used, the relationship between coding time (when the utterance is uttered) and receiving time (when the utterance is received by the addressee) is not particularly relevant, since it is, as Allott describes, an absolute reference which does not change depending on context and can always be somewhat precisely tracked. On the other hand, sentence (11) is highly dependent on the spatio-temporal context, for *now* needs to be interpreted in relation to its coding time. It is thereby deictic, or as Allott calls it, a *relative temporal reference* (Allott 2010, 58).

It should be noted that in a face-to-face conversation, the coding and receiving time naturally remain identical, and one can effortlessly interpret the message.² Nevertheless, some issues with reading might arise on forums. One may access the board some period after a post containing a temporal deictic expression was written. If this happens, the coding and receiving time would be, as a rule, different and temporal deictics might be no longer readily interpretable. However, forums usually show the coding time of the post in their layout; hence the time anchorage might be, to some extent, tracked back.

In following subchapters, temporal deictics as realised by tense and lexical means will be explored.

² Lyons (1977, 685) calls this *deictic simultaneity*.

1.4.2.1. Tense

Given the complexity of the topic and the limited space of this thesis, deixis realised by tenses will not be included in the analysis. Yet, some general findings concerning tenses from the viewpoint of deixis should be at least briefly outlined.

It is essential to realise that tenses pose a ubiquitous and somewhat implicit means of temporal deixis. It is, by nature, the most grammaticalized deictic category, for all finite and non-modal verbs naturally display it. In this respect, Levinson remarks that “tense is one of the main factors ensuring that nearly all sentences when uttered are deictically anchored to a context of utterance” (Levinson 1983, 77). Nonetheless, when analysing deixis, one should look at tense from a different perspective from that traditional, concerning morphology. Levinson, Marmaridou and Huang offer that two general categories of tense should be distinguished, i.e. metalinguistic tense (M-tense) and linguistic tense (L-tense). Linguistic tense deals with the morphological realisation of tense and is thus traditionally studied by grammarians. However, from the viewpoint of deixis, semantic M-tense happens to be more attractive, or perhaps the discrepancy of the two as the M-tense and L-tense do not always match in a proposition. (Levinson 1983, 77–78; Marmaridou 2000, 85; Huang 2014, 186) As seen in example (13), the sentence is indeed present simple from the perspective of L-tense; nevertheless, it is somewhat tenseless in M-tense and thus non-deictic since it could be interpreted as omnipresent, not dependent on the context for its interpretation. Similarly, a modal verb *will* usually refers to the future in M-tense and is thus deictic, yet in L-tense it is described as tenseless, for it does not take inflection to mark tenses formally.

(13) Teachers teach students.

The complex theory suited for the analysis of tenses from the viewpoint of deixis is proposed by Comrie (1985) who distinguishes between *absolute* and *relative* tenses. Absolute tenses take the moment of the utterance as their deictic centre (i.e. they are deictic per se) and can be distinguished into three dimensions of past, present and future, in English realised by past, present (including present-perfect) and future tenses, respectively. Relative tenses, in comparison, use the reference point of time as given by the context which is not necessarily the present moment; hence they might be said to be anaphoric. In English, they include past-perfect, conditionals and non-finite verb forms.

The attention will now be turned to lexical means of temporal deixis, which are targeted in the subsequent analysis.

1.4.2.2. Lexical Means

Grundy, Huang and Levinson state that lexical means of temporal deixis are realised mainly via deictic adverbs of time, such as *now*, *currently*, *recently*, *then*; phrases using a deictic component and non-deictic calendar/clock time expression (e.g. *this evening*, *next week*); and non-calendrical expressions realised by time adjuncts *yesterday*, *today* and *tomorrow* (Grundy 2000, 31; Huang 2014, 183–185; Levinson 2004, 114). Some important facts regarding their use should be now shortly introduced.

First, it must be remarked that time adjuncts dividing time into diurnal spans are privileged over non-deictic calendrical expressions, naming days of the week specifically. O’Keeffe, Clancy and Adolphs explain that *yesterday*, *today* and *tomorrow* together occur 1,234 times per million words, whereas days of the week altogether occur just 945 times per million (O’Keeffe, Clancy and Adolphs 2011, 51–52). This finding is in alignment with the theory of egocentricity as described in Chapter 1, according to which speakers tend to address spatio-temporal relations relatively from their point of view.

Based on the concept of distance, there are two prototypical deictic adverbs, i.e. proximal *now* and distal *then*. As Levinson (1983, 74) puts it, *now* can have two extremes of its use. In its first, somewhat gestural use, the span is instantly associated with uttering the expression, such as in (14). The second utilisation includes an extended temporal frame around the coding time. It is illustrated in example (15) taken from the thesis corpus, where the speaker talks about his current diet plan.

(14) Pull the trigger now.

(15) Depending if cut/bulk cycle, but It averages 15-20/day now on bulk.

Of course, there are other proximal expressions traditionally used to refer both to the immediate time around the coding time, such as *right now* or *at this moment*; and gesturally to the larger temporal frame, such as *currently* or even *presently*. However, expressions frequently overlap in their gestural and symbolic meaning, and the context remains crucial. It regularly happens that, for instance, *currently* is used in the meaning of *right now* and vice versa.

On the contrary, Huang and Levinson assert that *then*, being distal in nature, may be reduced to “not now” because it indicates time “either in the past or in the future.” (Huang 2014, 183; Levinson 1983, 74). Nevertheless, it must be highlighted that *then* in written texts, including the register of internet forums, is almost always anaphoric or completely non-referential in use

(see chapters 2.1.4. and 3.5.). Therefore, it appears that only proximal symbolic deictics, such as *now* and *currently* are to be found on forums. This is because internet forums pose a medium of written and asynchronous communication where participants do not share much of background knowledge. Accordingly, distal *then* is bound to have a specified textual antecedent to be meaningful and is thus anaphoric by itself. This endophoric use will be described in detail in Chapter 3. Now the attention should be devoted to spatial and emotional deixis.

1.4.3. Spatial and Emotional Deixis

The third deictic category deals with describing the relative distance, which can be both primarily physical, as in the case of spatial deixis, and psychological, encoding the emotional deixis. Huang (2014, 191) explains that such relations are most commonly expressed by demonstrative pronouns *this/these* and *that/those*; demonstrative adverbs *here/there*; and by motion verbs, such as *come* and *go*. Additionally, Lambrou and Stockwell (2010, 164) add that spatial prepositional phrases, such as *on the left/right* are deictic, too.

Before I move to their description, it must be highlighted that demonstratives are used both deictically and anaphorically. In this chapter, I will focus solely on their exophoric deictic use. For their anaphoric use, see Chapter 2.1.2. First, their general syntactic functions will be shortly described, and then they will be scrutinised from the viewpoint of deixis.

Concerning their syntactic function in English, Mithun and Diessel explain that demonstrative pronouns can be used both adnominally as determiners (e.g. *what's this thing?*) or pronominally, standing alone as pronouns (e.g. *what is this?*) (Mithun 1987, 184; Diessel 1999, 57).³ Demonstrative adverbs *here* and *there* may be used adnominally as well, when they intensify the demonstrative determiner (*what's this dog here?*) or as plain verb modifiers (*put it there*) (Diessel 1999, 74).

From the viewpoint of deixis, Diessel and Huang explain that English uses a two-term system of demonstratives.⁴ In this system, deictic demonstratives are viewed as either proximal (*this, here*), referring to something close to the speaker or distal (*that, there*), referring to something distant from the speaker, sometimes closer to the addressee (Diessel 1999, 36; Huang 2014, 119). Additionally, depending on the context needed for their interpretation, a further

³ Different terminology is often applied. Abbott (2017, 242) labels their pronominal function as *demonstrative pronouns* and adnominal function as *complex demonstratives*; Huang (2014, 233) additionally introduces the term *demonstrative descriptions* for their adnominal function.

⁴ For more on the concept of space in different languages see Imai (2017, 32–35); Levinson (2004, 116–118) and Huang (2014, 187–207).

distinction can be explicitly made into gestural and symbolic uses, for demonstratives naturally have a propensity to being supplemented with gestures (see Chapter 1.2.). Apart from demonstratives, spatial deixis is also frequently realised via locative adverbials which are often represented by prepositional phrases (Lambrou and Stockwell 2010, 164). These include spatial expressions typically based on the viewpoint of the speaker, such as *on the left* or *on the right*.

As the spatial reference is the inherent and palpable feature of demonstratives, I believe there is no need to elaborate on their spatial deictic function any further. However, Lakoff and Lyons explain that *this* and *that* may encode not only physical but also emotional closeness or distance, respectively (Lakoff 1974, 355; Lyons 1977, 677). This phenomenon has been repeatedly observed and given a plethora of terminologies, such as *emotional deixis* by Lakoff (1974) *empathetic deixis* by Lyons (1977) and Levinson (1983) or *inner deixis* by Caffi and Janey (1994). Nevertheless, all refer to the same concept, which will now be shortly illustrated in two authentic examples.

Regarding the distal use of emotional *that*, Sidnell and Enfield present the speech of 2008 presidential candidate Senator John McCain who used the expression *that one* to refer to Barack Obama who was sitting nearby at the time. This expression was used to emphasise the personal distance from the other candidate during the heated discussion. Not to mention that it was immediately picked up by media and denounced as rude, disrespectful or even racist (Sidnell and Enfield 2017, 233–234).

By contrast, the affective use of proximal demonstrative *this* might show empathy and closeness to a particular entity (Lakoff 1974, 347; Rybarczyk 2015, 54). Lakoff (1974, 347) provides the following example (18) where *this* seems to enhance the speaker's and listener's shared opinion on Kissinger.

- (18) The Secretary of State has made peace in the Mideast. This Henry Kissinger really is something!⁵

It should be noted that some authors, such as Rühlemann and O'Donnell, link emotional deixis with the use of tenses. They claim that in storytelling, the past tense is frequently shifted to the present tense to show involvement of the narrator with the speech exchange that the story is

⁵ From the viewpoint of a complex analysis of reference, *this* encodes emotional deixis and, at the same time, serves as an anaphoric marker, explicating the link of the proper name with its antecedent in the previous sentence.

about (Rühlemann and O'Donnell 2015, 339). However, such use of emotional deixis is far beyond the scope of this paper.

Lastly, a unique means of realising spatial deixis are deictic directionals, making use of motion verbs such as *go* and *come*. Huang explains that those “encode motion towards or away from the deictic centre, typically the speaker.” (Huang 2014, 204). In this respect, Wang further adds that there are two general categories of motion verbs. The first category, consisting of verbs such as *come*, *arrive*, *reach* or *bring*, expresses the movement towards the speaker and might be considered proximal. Diversely, verbs such as *go*, *leave*, *depart* or *take* encode the movement away from the speaker and are thus distal deictics (Wang 2018, 481). Nonetheless, it is essential to note that there are numerous idiomatic phrases in which motion verbs could barely be considered deictic. Consider example (19) taken from the thesis corpus.

(19) This is how I'd rate the “easy” classes as far as questing goes.

In example (19), *goes* does not describe any motion, for it is a part of an idiomatic phrase. It could be substituted by *concerned*, i.e. *as far as questing is concerned*. In the corpus, such non-deictic uses will be explicitly distinguished from deictic ones. For more on deictic motion verbs see Fillmore (1975, 50–69).

1.4.4. Discourse Deixis

The last and perhaps the most controversial category of deixis is that of discourse deixis, first presented by Fillmore (1975) and Lyons (1977). Levinson explains that it encodes a situation when certain linguistic expressions, such as demonstratives *this* and *that*, point to the other segments of the discourse (Levinson 2004, 119). Given this definition, it is apparent that such expressions would inherently operate in the textual universe; hence from the traditional viewpoint concerning reference, they would be non-deictic and anaphoric by themselves. In fact, a myriad of terms are used to describe this phenomenon, treating discourse deixis as a subtype of anaphora. Those include *abstract anaphora* (Asher 1993); *complex anaphora* (Consten, Knees and Schwarz-Friesel 2007); or *non-nominal anaphora* (Hedberg, Gundel and Zacharski 2007). Therefore, on account of the subsequent analysis, it remains vital to specify the key differences between discourse deixis and anaphoric reference, which will be further applied in the analysis.

Kurzon explains that deictic expressions refer to the text, whereas anaphora is rather a local cohesive device. Accordingly, in discourse deixis, the deictic expression refers to the text or

part of the text, while anaphora is rather a repetition of a previously mentioned noun (1985, 188). In other words, when the expression points to the discourse segment as consisting of the whole clause, including sequences of propositions and entire paragraphs where one nominal antecedent is barely obtainable, it will be classified as primarily discourse deictic, for it points to the text, rather than substitutes a single nominal element. As mentioned above, typical discourse deictics are demonstratives *this* and *that*. For a better illustration of the whole phenomenon, I offer example (20), taken from the thesis corpus.

(20) BM Hunter = #1

Affliction Warlock = #2

Protection Paladin = #3

Blood DK / Tank Druid = #4 (tie)

This is how I'd rate the "easy" classes as far as questing goes.

In (20) *this* does not refer to any specific nominal element as it is used to draw the attention to the whole previous proposition. However, Kolhatkar et al. explain that, although less frequently, the third-person pronoun *it* can also be used to refer to non-nominal segments of the text, and thus demonstratives *this* and *that* are not exclusive devices of discourse deixis (Kolhatkar et al. 2018, 559). This makes the analysis more complicated, for it must be carefully decided whether *it* is co-referential with a specific noun phrase and thus anaphoric, or whether it points somewhat loosely to the previous discourse; hence is discourse deictic. Sometimes, both interpretations are possible. For the quantitative analysis, the more plausible interpretation will be chosen, yet both potential readings will be noted in the corpus.

Additionally, upon scanning the literature, apart from demonstratives and the third-person pronoun *it*, some authors consider even more expressions to carry a discourse deictic function. Rühlemann, O'Donnell and Levinson propose that some discourse markers such as *well*, *but*, *therefore*, in their discourse-initial positions, carry discourse deictic function, too, for they trigger the conventional implicature and explicate the relation of the current utterance to the surrounding discourse (Rühlemann and O'Donnell 2015, 338; Levinson 1983, 87; 2004, 119). For this reason, I will treat post-initial discourse particles as discourse deictic, too. However, it should be noted that discourse markers also carry other functions than those discourse deictic because they can, for example, serve just as simple conversation fillers or even mitigate one's

response to some extent. Moreover, they are a predominant feature of the spoken language. Although forums pose a specific register which frequently gets close to the typically spoken language, the communication remains asynchronous; hence the prevalence of discourse markers, which naturally make use mainly in a face-to-face conversation based on turn-taking, is expected to be limited.

Lastly, Fillmore adds that certain expressions employing traditionally spatial and temporal deictics are frequently used to refer to the adjacent text portions. These include, for instance, *above*, *below*, *the former* and *the following*. (Fillmore 1984, 144) Grenoble (1994, 208–209) calls these *directional discourse deictics* and expounds that they function as signposts for the addressees of the message, facilitating their orientation in the presented discourse. Given the written mode of the forum communication, those are likely to be encountered in the analysis. In this respect, expressions such as *above* or *below* should be distinguished from their spatial deictic use as they do not point to the physical space, but rather to the metaphorical space as represented by the text universe.

2. Endophoric Reference

In the previous chapters, deictic reference has been explored. To summarise the whole topic, Fillmore (1975, 42) illustrates the context-dependency of deictic expressions in the following hypothetical situation when one finds a message in a sea (21).

(21) Meet me here at noon tomorrow with a stick about this big.

Finding this message in a bottle would have a zero informative value because deictic expressions *me*, *here*, *tomorrow* and *this* require the addressee's knowledge of the extralinguistic context in which they are uttered. Apart from the coding time of the message, it would involve a direct physical context of the situation, for the gestural use of *this*, indicating a desirable length of a stick, would require a gestural complementation to be meaningful.

However, not all reference is deictic and the distinction must be made between *exophoric* (i.e. deictic) reference, referring to the extralinguistic reality (context) and *endophoric* (i.e. anaphoric) reference, which operates inside the discourse (co-text) and shows the co-reference between the linguistic elements in the text.⁶ As the goal of this thesis is to assess the distribution and uses of both deixis and selected types of anaphora, in the following chapter, anaphoric reference will be described in more detail, especially from the viewpoint of its comparison to deixis.

2.1. Anaphora and Cataphora

As outlined above, endophoric reference, unlike exophoric (deictic) reference, is a non-situational in nature, meaning that it refers to an element in co-text and not in a situational context. Traditionally, Halliday and Hassan describe two types of endophora, based on the textual location of their antecedents. From the traditional point of view, when the antecedent is found in the previous portions of the text, the reference is *anaphoric*. On the other hand, if the antecedent is located in following segments of text, the reference is *cataphoric* (Halliday and Hassan 1976, 33).⁷ The palpable difference between the two is illustrated in examples (22) and (23).

(22) Have you seen Jane? She should be here already.

⁶ Some Czech linguists, such as Machová and Švehlová (1996, 134) and Hirschová (2013, 118) label exophoric reference *situational deixis* and endophoric reference *contextual deixis*.

⁷ Anaphora and endophora are frequently used interchangeably, subsuming both anaphoric and cataphoric reference. This use will be followed in this thesis.

(23) When she arrived, Jane was very hungry.

In example (22), third-person pronoun *she* is used anaphorically, referring to and substituting its antecedent *Jane*. Following example (23) shows the cataphoric use of third-person pronoun *she* whose antecedent *Jane* is found later in the sentence. It should be noted that anaphoric reference is far more common in everyday English. Cataphora appears only in some special constructions in poetry and journalism, where it is used to create suspense (Finch 2005, 201–202). As Hannay et al. delineate, this is because anaphora refers to the idea in a natural order in which one's idea is first introduced and then logically elaborated so that it is easy to follow and understand what is communicated. Inversely, cataphora is an emphatic device by which one creates an interest in the addressee by reversing this natural message order. (Hannay, Mackenzie and Wekker 1996, 180)

Finally, it is important to comment upon what makes the anaphoric reference important for the text, or perhaps, why is anaphora privileged, instead of repeating the same independent expression. Linguists broadly recognise that anaphora is a potent cohesive device, fostering the overall meaningfulness, comprehensibility and clarity of the text. Furthermore, by the successful establishment of coreferential links between anaphors and their antecedents, the text can be reduced by substituting complex noun phrases with more economical pro-forms. (Čermák 2011, 188; Halliday and Hassan 1976, 31; Hirschová 2013, 119; Schmolz 2015, 18; Wales 1996, 30–31) Quirk, Greenbaum, Leech and Svartvik (1985, 860) further assert that this reduction concerns not only the language economy but also makes the addressee focused on the new upcoming information in the evolving discourse. This is because a pronominal pro-form is short and easy to process, for it does not contain any unnecessary modifiers. Its main function is thus to sustain the established focus of the addressee and prolong the topic continuity.

In this respect, it must be pointed out that, as Halliday and Hassan explain, this cohesive function distinguishes endophora from exophora, for the latter naturally lacks the binding function (Halliday and Hassan 1976, 18). Deixis operates in the extralinguistic context and is used to direct someone's attention to some entities or ideas outside the textual universe. There are, of course, more cohesive devices than just reference. These are both grammatical, which apart from reference and substitution, include ellipsis and conjunctions; and lexical, making use of collocations and reiteration. However, they will not be discussed in this thesis, as they are not relevant to the analysis. For more on cohesion, see Halliday and Hassan (1976) and Mahlberg (2009, 103–106).

Having outlined the general underpinnings for the concept of anaphoric reference, I will now focus on selected types of anaphora in more detail. Concerning the analysis, it must be made clear that some traditionally deictic expressions, including demonstrative pronouns *this* and *that*, demonstrative adverbs *here* and *there* and temporal adverbs such as *then*, are frequently anaphoric, or sometimes even both anaphoric and deictic at the same time. As this thesis focuses mainly on deixis, only those anaphoric expressions utilising potentially deictic expressions will be analysed to assess their prevalence and purpose in forum posts.

2.1.1. Pronominal Anaphora

It has already been acknowledged that first and second-person pronouns (*I* and *you*) are considered pure deictic shifters. By contrast, third-person pronouns are, especially in written texts where the physical context is missing, virtually synonymous with anaphora. They create a link between the anaphor and its antecedent in the form of a specific noun phrase previously introduced in the discourse, which they further reduce by substitution to lessen redundancy, and allow the addressee to concentrate on new information in the proposition. I offer example (24) taken from the corpus, showing the co-referring pair of nominal antecedent *caffeine* and its pro-form *it*.

(24) I am super sensitive to caffeine and if I take too much of it, I get bad side effects.

Mitkov further explains that pronominal anaphora is the most widespread type of textual reference found in English. It subsumes the endophoric use of third-person pronouns, including their objective and possessive forms, along with non-deictically used reflexive and emphatic pronouns (Mitkov 2002, 9).

2.1.2. Demonstrative Anaphora

The next set of anaphoric expressions which ought to be distinguished from their deictic uses are demonstratives *this/these* and *that/those* (see 1.4.3. on their deictic use). As to their syntactic function, Diessel explains they can be used both adnominally and pronominally (Diessel 1999, 57–73). In their adnominal use, they function as anaphoric markers for the head noun, making the whole phrase coreferential with the previously introduced antecedent. On the other hand, in

their pronominal use, they stand on their own and point to their nominal antecedent as located in adjacent text segments.⁸ Consider examples (25) and (26) taken from the thesis corpus.

(25) Personally, I recommend trying a Mage. I found as my time playing a Mage that it was a lot easier to learn this class than other specs I have tried.

(26) My wife spends about 100GBP (=130USD) each week in Aldi. This is for 3 of us.

In (25), *this* is used as an adnominal anaphoric marker for the head noun *class*, referring to its nominal antecedent *mage* found in the previous sentence. On the other hand, in (26), pronominal *this* refers, or perhaps “points” intersententially to the amount, i.e. *100GPB* as specified in the previous sentence. Yet this case might also be interpreted as discourse deictic since *this* could be understood as referring to the whole proposition and not just to the given amount of money. Nonetheless, it may be argued that the antecedent-trigger (the specific amount of money) is nominal in character, and thus the reference is rather anaphoric.

2.1.3. Spatial Anaphora

Although primarily deictic, locative demonstrative adverbs *here* and *there* may be used anaphorically, too. Mitkov (2002, 12) provides an example (27), in which *there* is used anaphorically, referring to the previously mentioned noun phrase *the garden*.

(27) Will you walk with me to the garden? I’ve got to go down there and Bugs has to go the longhouse.

However, Lyons (1977, 676) adds that *here* and *there* may be frequently viewed as both deictic and anaphoric simultaneously. In (28) below, Lyons argues that *here/there* is used both anaphorically, referring to its antecedent *London*, and deictically, when the speaker chooses between the proximal or distal locative, depending on whether they are in London at the time of the utterance or not.

(28) I was born in London and I have lived here/there all my life.

2.1.4. Temporal Anaphora

The last type of anaphora to address concerns non-deictic temporal links, operating in the textual dimension. Those are realised mainly by anaphoric uses of adverb *then* and sometimes

⁸ Schmolz (2015, 55) uses terms *dependent* and *independent* for their anaphoric adnominal and pronominal uses, respectively.

even other expressions such as *soon*, *previously* and *earlier*, to name a few. From the viewpoint of this thesis, the most interesting remains adverb *then* which appears to be the most frequent, especially in written texts, including internet forums. Schiffrin (1987, 249) claims that it is regularly used anaphorically to refer to previously mentioned time. For illustration, she provides example (29).

(29) Debby: So, when did they come here?

Ira: 1906 Um: around 1906.

Debby: How old were they then?

In this dialogue, *then* refers anaphorically to previously introduced event time, i.e. *around 1906*. Then again, it might be viewed as both anaphoric and deictic as well, since it points to the event time which is distal from the coding time of the utterance. Nevertheless, this relationship is already shown by past tenses; hence it might be said that the primary function of *then* remains anaphoric. For this reason, such cases will be classified as primarily anaphoric in the analysis.

Importantly, Huddleston and Pullum further explain that *then* is not anaphoric only when referring directly to its explicit antecedent but also when it refers to a time shortly after the event to which it points. In that case, *then* could be paraphrased as *after that* (Huddleston and Pullum 2002, 1559). This use of anaphoric *then* is often employed when describing someone's general routines, plans or in a story narration. For illustration, consider the example (30) taken from the thesis corpus.

(30) I wake up at 4. every morning then hit the gym and have a feed straight after then go to work never really feel slugging from it aslong as I eat straight after workout.

In its both occurrences, *then* distally refers to the time after the previous events and denotes a temporal sequence, fostering the cohesion of the text by showing the chronological relation of the activities. Instead of repeating the whole clauses, the speaker links them with a sole temporal expression, which is by no means deictic but purely anaphoric. It operates within the temporal dimension of the text itself, independent on its coding time. Accordingly, I will consider *then* denoting a time sequence anaphoric in the analysis, too.

Of course, there are also different types of anaphoric reference. These feature the use of definite noun phrases, relative and indefinite pronouns, certain *wh*-elements and proper names. However, they are not particularly interesting for this thesis since they utilise elements which cannot be used deictically under any circumstances. Therefore, due to the limited space of this

thesis, they are not included in the analysis. For more on anaphoric reference, see Schmolz (2015) and Mitkov (2002).

3. Non-referential Uses of Traditionally Referential Expressions

Having described both deictic and anaphoric referential expressions, I should shortly summarize their non-referential uses which are distinguished on their semantic, syntactic and occasionally also prosodic basis, for their form remains indifferent. These concern expletives, including pleonastic *it* and existential *there*; non-deictic *now* used as a discourse marker; generic non-deictic *you*; *that* functioning as a complementiser or relative pronoun; and non-temporal uses of *then*. These non-referential counterparts should be outlined for the sake of the subsequent analysis because they must be excluded from the quantitative measurement.

3.1. Pleonastic *It*

First to consider is *pleonastic it* (also referred to as *prop it*) which functions as a dummy pronoun, having an exclusively grammatical function (Quirk, Greenbaum, Leech and Svartvik 1985, 348–349; Biber et al. 2005, 332). Biber et al. (2005, 332) further describe its three major syntactic functions. It can be an empty subject or object, frequently expressing weather conditions, distance or time; anticipatory subject or object of an extraposed clause; or subject in cleft sentences, focusing a particular element in the sentence. He further provides examples (31) and (33); example (32) is taken from the thesis corpus.

(31) It's a long way from here to there. (empty *it*)

(32) Plus, it is known that cortisol is higher after the night sleep. (anticipatory *it*)

(33) Oh Peter, it's today you're going up to Melbourne isn't it? (subject of a cleft sentence)

However, the distinction between grammatical and referential *it* is not always apparent. Gundel, Hedberg and Zacharski (2005, 9–10) argue that some cleft and extraposed sentences can be truncated as in (34). Although, the reply containing pronoun *it* can be paraphrased as the full cleft or pseudocleft sentence, it may also be viewed as referring to the cause or reason as provided by the question in (34A). For this reason, both referential and grammatical interpretations are possible.

(34) A: So that's why you're interested in death?

B: Maybe it's because my parents were old? When I was young?

Furthermore, on many occasions, *it* is used somewhat vaguely. One cannot unequivocally tell whether it is present solely for the sake of grammar or whether it retains its referential function. To illustrate the phenomenon, I provide examples (35) and (36) taken from the corpus.

(35) How about splitting it into more smaller workouts [...]

(36) Buying most in bulk and looking for the best deals, i'd say somewhere around \$150 or so for the month. I try to keep it low if I can.

In the example (35) above, *it* could likely be paraphrased as “routine” given the situation (see the whole utterance in Appendix 1). Similarly, in (36), *it* might be replaced by “spendings”. However, no such antecedents are present. Therefore, if such instances are treated as referential at all, their exact reference is vague and must be somehow inferred from the context. For this reason, such borderline cases, including truncated and other indeterminate uses will be subsumed under the category of “indeterminate reference” to support the overall accuracy and reliability of the research.

Apart from uses mentioned above, some authors explain that non-referential *it* also frequently involves idiomatic fixed phrases (Mitkov 2002, 10; Bergsma, Lin and Goebel 2008, 10). To name a few examples from the corpus, these include phrases such as *worth it*, *when it comes to*, or *that's about it*. Then again, their completely non-referential nature may be frequently questioned. It is not always clear which phrase is idiomatically fixed and which form just a stronger collocation where *it*, to some extent, still preserves its referential function.

3.2. Existential *There*

Similarly to pleonastic *it*, existential sentences in which *there* is utilized in a non-referential way regularly occur in English. Existential *there* is used as an introductory element in a sentence, providing a semantically empty theme in the form of an anticipatory subject (Biber et al. 1999, 943; Quirk, Greenbaum, Leech and Svartvik 1985, 1402; Radford 2009, 385). See the example (37) picked from the thesis corpus.

(37) Sometimes there's not a tank in the invasion wqs anymore [...]

A further distinction between spatial and existential uses of *there* concerns phonology. As Roach, Skandera and Burleigh explain, *there* is typically used in a strong form (ðeə) when it is a referential locative adverb, and in a weak form (ðə) when existential (Roach 2009, 93; Skandera and Burleigh 2011, 84).

3.3. Other uses of *This* and *That*

It has already been described that demonstratives *this* and *that* can have both deictic and anaphoric function. However, as O’Keeffe, Clancy and Adolphs offer, they may be used non-referentially as a part of fixed idiomatic phrases, such as vogue expression *this and that* (O’Keeffe, Clancy and Alophs 2011, 38). Additionally, *that* can possess more grammatical functions. It is frequently a complementiser or a relative pronoun⁹ (O’Keeffe, Clancy and Alophs 2011, 38; Yaguchi 2001, 1125). Consider examples (37) and (38) taken from the thesis corpus.

(37) The fun thing about the Blood DK is that no pet is needed [...] (complementiser)

(38) Hunter, Warlock, any class that has a tank spec. (relative pronoun)

3.4. Generic *You*

Typically, the second-person pronoun *you* refers to the specific addressee(s) of the utterance and is thus purely deictic. However, authors agree that sometimes the reference is directed to people in general which are further unspecified. In that case, *you* is generic and hence rather non-deictic, for it does not directly identify specific participants in the speech event (Grundy 2013, 24; Huddleston and Pullum 2002, 1447). Consider the following example (39) taken from the thesis corpus.

(39) All around, relaxing dps class is Hunter. Also you can have a virtual pet buddy with you.

In the example (39) above, the use of *you* appears generic because it describes a player of a hunter class in general, not only the specific addressee of the post. Here *you* may be substituted by a more formal alternative *one* and *themselves*, respectively. Nonetheless, it could be argued that even when used generically, *you* still identifies the individual recipient of the message. For this reason, its interpretation as deictic or non-deictic is not definite; hence it may be frequently classified as both, depending on the interpretation. In the analysis, such generic interpretations are provided as additional to deictic when possible.

⁹ Relative pronouns might be treated as forms of anaphoric reference. However, such use of anaphora is not discussed in this paper. See, for example, Schmolz (2015, 62–68).

3.5. Non-referential *Now* and *Then*

Finally, *now* and *then* can be used non-referentially, too. Apart from its deictic use, *now* may occasionally function as a discourse marker. Schiffrin (1987, 231) and Aijmer (1988, 31) argue that it can be used as a discourse particle, helping to organise one's discourse. It serves to introduce a new idea that contrasts with something previously stated. Schiffrin (1987, 231) provides an example (40).

(40) A: It's nice here.

B: Now, our street isn't that nice.

Similarly, *then* can be used both non-anaphorically and non-deictically when introducing a result, enumeration or, as Schmolz (2015, 70) adds, when it is synonymous with *also* or *besides*. Consider example (41) taken from the thesis corpus.

(41) If you want something with faster que for lfr or lfd then a druid or a pally would be better.

In the analysis, such uses of *now* and *then* will be treated as non-referential. Yet it must be noted that *now* remains prototypically deictic in use; its use as a marker appears to be less frequent, especially outside the spoken, face-to-face interaction.

To conclude, traditionally deictic and anaphoric expressions, albeit formally indifferent, can commonly be used non-referentially. Therefore, they must be carefully handled in the analysis. In the following section, comprising the last major chapter of the theoretical part, the language of the internet and namely internet forums will be briefly outlined to describe the nature of the forum register.

4. Computer-Mediated Communication

The internet is one of the most significant technical phenomena of the present-day society, and one can barely think of a computer without having access to this World Wide Web – the online network we know and use today. It is estimated that 90% of all people in the EU used the internet at least once in 2019 and one might thus suggest that nowadays even the most basic computer or smartphone is virtually synonymous with the internet access of some kind.

This widespread commercial emergence of the global internet, beginning in the early 90s, inevitably led to entirely new domains of communication which had not been possible ever before. Soon, many distinctive means, such as electronic mails, instant messaging or discussion forums arrived and continue to evolve rather quickly. Indeed, David Crystal glossed in the preface of the second edition of his *Language and the Internet* (2006) that he had not expected to write a second edition of his book just a few years after finishing the first; however, the roaring, ever-changing nature of the internet demanded it. In fact, even this second edition is quite outdated today.

As the main aim of this thesis is to discuss deixis and anaphora as used on the selected internet forums, it is first necessary to introduce the language of the internet as such and then characterise the register of online forums in more detail.

4.1. General Remarks on the CMC

The communication on the internet is frequently described under the term *computer-mediated communication* (CMC) since people communicate with others via the computer interface. Simpson (2002, 414) and Lim (2017, 232–233) explain that CMC can be generally divided into two main categories based on its immediateness. The first category is that of *synchronous* communication, which takes place in real time and requires both speaker and the addressee to be online at the same time (e.g. instant messaging). The second category exhibits *asynchronous* communication, where participants are not required to be online simultaneously (e.g. e-mail or online forums). Baron further argues that apart from synchronous and asynchronous dichotomy, it is possible to divide CMC from the viewpoint of the addressee into either *one-to-one* or *one-to-many* types. In the former, there is just one addressee; hence the communication is held only between two people (e.g. messenger or private e-mail). In the latter, participants share their messages with more than one addressee, as in chat rooms, forums or on social networking sites (Baron 2010, 1). Nonetheless, it must be noted that users often cross the lines of these

categories. That is to say, e-mail might be used somewhat synchronously and instant messaging rather asynchronously.

Given the fact that synchronous/asynchronous and one-to-one/one-to-many types of CMC employ language differently, some linguistic generalisations concerning the internet language as a whole are barely feasible. Nevertheless, it is possible to list some basic distinctive features. First, a general distinction can be made between the written or spoken language, based on linguistic tendencies occurring in the discourse. Crystal (2006, 31; 2011, 31-32) explains that although in its form, CMC is still primarily written (this is true even today), linguistic features and organisation of the discourse makes it closer to either typically spoken or written texts.¹⁰ As of today, the most typical speech-like CMC register is that of instant-messaging which is highly spontaneous and socially interactive, making use of sentence fragments, emoticons and a plethora of face-to-face paralinguistic mimics (see Appendix 4 for more on CMC features). By contrast, typical registers carrying dominant features of the written language may be found on the Web and include online articles, reports or advertisements. These are, as a rule, factually communicative and elaborately structured with the option to be repeatedly revised, and thus closer to traditionally written texts.

There are, of course, many different genres and registers of CMC, such as e-mails or the language of certain videogames, featuring fictional worlds. However, the attention should be now devoted to a description of forum language. For more on CMC, see Biber and Conrad (2019, 174–221); Crystal (2006) and (2011). McCulloch (2019) provides less technical but more up-to-date writing on internet registers in general.

4.2. Internet Forum and its Discourse

Before a more specific linguistic description is provided, it remains necessary to introduce online forums in general. First, definitions will be provided, and then the attention will be turned to their distinctive linguistic features. In the very last subchapter, the special attention will be devoted to deictic and anaphoric reference in the context of online forums.

Rigdon defines internet forum as “a medium provided by an online service for users to carry on written discussions of a particular topic by posting messages and replying to them.” (Rigdon

¹⁰ Urbanová (2008, 37) explains that spoken language is unique for its readiness and immediateness. Speech being typically impromptu and frequently dominantly phatic with recurrent paralinguistic features, such as gestures and mimics. On the other hand, written language is usually carefully planned, factually communicative with a thorough choice of linguistic items, concerning lexicon and grammar.

2016). A similar definition is held by Biriya and Thomas who explain that “online discussion forum (ODF) is a web-based application that brings people together with shared interest and mind-set.” (Biriya and Thomas 2014, 112) Otherwise stated, it might be said that online forum is a type of virtual message board, or perhaps a public space, where people can discuss various topics as in a face-to-face conversation but without sharing the immediate physical context accompanying such speech acts.¹¹ Technically, the concept of a virtual message board is nothing new. In fact, Taimo claims that modern message boards developed from bulletin board systems which were present as early as in the 1970s. Nevertheless, it was not earlier than in the 1990s when first forums with similar formats to those used today appeared (Taiwo 2010, 186).

Consequently, with the growing popularity of the internet, many types of forums, varying both in their display formats and the subject of interest, emerged. However, I will not discuss those general parameters here as they are not essential for the analysis. Specific technical parameters and layout of forums which are the subject of the research, will be introduced before the analysis along with the research methodology. Furthermore, I propose a brief theoretical underpinning regarding forum formats in Appendix 5.

4.2.1. General Description of Forum Language

It has already been described that, concerning the prevailing linguistic features, CMC generally lies in between spoken and written modes of communication. Online forums are not different; the utilisation of linguistic features varies across forums, and, most importantly, even among individual users. Accordingly, one may see a lengthy, coherent writing close to a typically written discourse in one post, and a quick response based solely on initialisations and emoticons in the next. With this in mind, it is barely possible to reliably summarise the forum language.

Yet some notable features can be characterised. First and foremost, based on the above-mentioned Baron’s terminology, the way people communicate on forums could be described as an asynchronous, one-to-many type of CMC. It is asynchronous because users need not be online simultaneously when adding and replying to posts on the discussion board, and, at the same time, it is one-to-many as users do not address each other privately and others can join the thread whenever they want. Notwithstanding that threaded forums allow creating new threads to initiate conversations with individual users, others can freely enter the conversation

¹¹ This absence of the physical context is vital for further analysis (see Chapter 4.2.2.).

later. Therefore, it could be concluded that communication remains one-to-many on all types of forums (see Appendix 5 for more on forum formats).

As already acknowledged, there is a considerable amount of language variability among types of forums and their topics. Most importantly, even users in the same forum thread often utilize language differently. The likely reason is that present-day online forums are melting pots of people with different education, social class or even first languages, which itself is a significant variable which must be taken into account when carrying out any linguistic analysis. Additionally, the subject matter of the forum remains salient, too, for it might be expected that highly specified and somewhat formal discussions, rich in technical terms, would employ the language differently than casual message boards concerning, for instance, a particular videogame.

However, if one is to summarise the distinctive linguistic features which are to be found on forums, those would involve mainly two phenomena worth more elaborate description. First, concerning syntax in general, Biber and Conrad explain that forums are close to emails and sometimes to the language of conversation. They involve shorter clauses with a higher occurrence of verbs combined with frequent use of adverbs, such as *just*, *really* or *actually*, for they soften the requests as demanded by users asking questions in the forum thread. (Biber and Conrad 2019, 193)

The second major group of distinctive features involves specific word-formation processes (i.e. *initialisations* such as *LOL*, *OMG*, *IDK*; *clipping* such as *cuz*, *cya*; and specific *number-based replacements* such as *gr8*, *b4*). There are also various paralinguistic mimics, compensating the absenting paralinguistic features of a face-to-face conversation. Those include emoticons, emoji, and some graphical properties of the text itself. (Indrová 2011; Sun 2010 99–100; Danet 2010 147–148). Distinctive linguistic features of CMC with regard to forums are discussed in more detail in Appendix 4. Given the limited space of this thesis, I will now focus on deixis and anaphora, specifically in the register of internet forums.

4.2.2. Deixis and Anaphora on Internet Forums

In this very last chapter of the theoretical part, it remains necessary to discuss deictic and anaphoric reference in the context of internet forums. This chapter works as a conclusion of the whole theoretical part, subsuming the theory of deictic and non-deictic anaphoric reference as used in the register of online discussion forums. Based on the previously outlined theoretical

framework, I will try to summarise the way this platform would utilise deixis and anaphora. Note that sources dealing with deixis and anaphora specifically on discussion boards are lacking; hence descriptions must be often based solely on my observations. First, I will discuss deixis in more detail, for it is a central topic of this thesis. Afterwards, the use of non-deictic anaphoric expressions will be summarised.

4.2.2.1. Deictic Reference

Before dealing with deixis on online forums, the general nature of this register should be considered. It is of vital importance to realise that, on this platform, the conversation does not develop in a physical context shared by participants (Biber and Conrad 2019, 192). In fact, online forums are asynchronous means of communication, which involve contributions from a myriad of participants. Those are commonly scattered around the world and have different spatio-temporal anchorage. Accordingly, spatial deictic expressions, such as *here* in (42) are expected to be limited.

(42) It is cold here.

As a rule, spatial deictics would be challenging to interpret, unless there are other clues found either in the previous conversation or in the layout of the forum itself (e.g. information about the user's geographical location).¹² Similarly, temporal deictics are likely to be limited solely to their proximal forms (e.g. *now*, *currently*, *at this moment*), referring to a period around the coding time of the post, which, at least upon the starting the thread, is assumed to be the same for all participants. In contrast, the absence of the shared context with other participants makes it somewhat impossible to directly refer to distal points, as typically realised by *then*. Therefore, distal temporal expressions are expected to be used almost exclusively anaphorically, for they are bound to refer to previously introduced time within the text itself. Additionally, as previously described, both *now* and *then* can sometimes be completely non-referential when they encode no temporal relations.

Although spatial deictics on forums seldom point to a physical context outside the text, Biber and Conrad observe that deictic demonstratives might be employed when referring to some visual clues attached to the post (Biber and Conrad 2019, 192). I might perhaps extend this thought by adding that demonstratives in written texts, along with a third-person pronoun *it*,

¹² However, even when the information regarding the user's geographical location is provided, it is not specific enough. In (42), it can be cold in the apartment, in the town or even in the whole country.

frequently function as discourse deictics because they commonly refer to discourse segments made of propositions or even to the whole posts. Moreover, as the forum consists of chronologically organised written posts, directional discourse deictics specifying the location, e.g. *as mentioned above*, or utterance-initial discourse markers, such as *well*, might be found, too.

Having described the spatio-temporal limitations as posed by the absence of a shared physical context, I should now focus on person deixis. Generally, the massive prevalence of pure deictic shifters *I* and *You*, used to identify continuously shifting roles of speakers and addressees, might be expected.¹³ Typically, proximal *I* would identify a user providing a particular opinion in the discussion (or in the central thread post). By contrast, distal *you* would refer to a user asking the central thread question, or, in some cases, other participants on the board. Actually, this prevalence of person deixis has been observed in previous studies. One study is proposed by Andersson, who assessed the number of deictic expressions found in selected forum threads. He found that person deixis was by far the most frequent type, with the occurrence of other deictics being somewhat sporadic (Andersson 2015, 13–14, 16–17). Nevertheless, exact numbers of occurrences are missing in this research, and the discussion is insufficient to draw any reasonable conclusions. Similar results have been observed by Divišová (2015) in the analysis of one specific discussion forum. However, it must be noted that her research focused on deixis in German, and thus any conclusions regarding deictics in English cannot be drawn either. It seems that no other works on deixis as found on forums are currently available.

In connection with person deixis, I should briefly focus on social deixis. First, Biber and Conrad (2019, 195–196) explain that in the register of online forums, openings and closings are not commonly observed in posts. Therefore, as social deixis is realised by vocatives which are naturally expected in salutations, its use may be expected to be limited. Yet, if social deixis is utilised, familiarisers, such as *guys*, *pal* or *bro*, would likely be its exclusive forms, by virtue of the informal and frequently intimate setting of discussion boards. Additionally, as previously mentioned, social deictics are expected to be used as vocative addresses to facilitate the relationship between the speaker and the addressee(s); not as gestural calls used to initiate the conversation by drawing addressee's attention. Honorifics, along with surnames and titles, are

¹³ This is, of course, given by the analytical nature of English. Unlike for example in synthetic Czech, first-person pronouns are overly realised in the sentence.

barely to be ever employed as they do not fit the context of the situation at all. Moreover, forums usually do not provide real names and sex of participants which could be addressed.

Lastly, I should comment on two perhaps most marginal types of deixis, i.e. deictic motion verbs and emotional deixis. On forums, spatial deixis realised by motion verbs is unlikely to be used gesturally as in a face-to-face conversation where it frequently appears in imperative *go there/come here* sentences. However, a somewhat symbolic deictic function can be traced when speakers share their routines and experiences with other participants, such as in an illustrative proposition (43).

(43) I come home from work and then go to the swimming pool.

In this sentence, it might be understood that *come* and *go* refer to the speaker's movement towards or out of deictically centred home location, respectively, and signal transition from one activity and place to another.

Regarding emotional deixis, it is important to point out that in the written communication on forums, it is expected to be frequently a part of the endophoric structure. Demonstratives would be used either pronominally; hence frequently discourse deictically or adnominally as a determiner of co-referring noun phrases. It might be concluded that interpretation of emotional deixis remains highly subjective because it is often not clear whether demonstrative is used to mark coreference only, or whether it carries the additional, emotionally marked meaning.

Having outlined the fundamental preliminaries on deixis on online forums, I will now focus on non-deictic anaphoric reference.

4.2.2.2. Anaphoric Reference

Regarding the prior contemplations on deixis, one might expect that given the absence of a shared physical context, anaphora, relying on co-text, is prone to be found as the default type of reference on online forums. Indeed, when the exclusion of person deixis is made, anaphora would likely prevail. Typically, the most dominant type would be pronominal anaphora, which refers to nominal entities in the text. Subsequently, essentially deictic demonstratives and time adverbs are frequently employed anaphorically, too.

First, it is essential to realise that, as with any other written text, the forum post should be thoroughly and logically developed. The absence of physical context makes inferences more complicated and thus all events and entities, including their spatial and temporal anchorages,

should be first introduced and only then referred to anaphorically. Accordingly, anaphora becomes an important cohesive device, for it links discourse elements together and fosters the comprehensibility of the text by reducing nominal constituents. Substituting complex noun phrases makes the text less redundant and frequently shorter. Forum posts generally tend to be short but informative; they favour providing an informative, yet concise answer to the specific thread question. Therefore, this reduction is of considerable relevance. Not only it halts redundancy, but it also has a more functional purpose. It lightens the structure of the proposition so that the addressee can pay attention solely to the new information. This focusing strategy is especially significant, for it directly impacts the quality of the information transfer. It makes one's utterance logical and effective as the addressee does not have to expend unnecessary effort to decode the intended meaning.

Moreover, many expressions which are traditionally referential can also be used in a non-referential way, being employed mostly for the sake of grammar. In the corpus, these will be marked with a different colour, and their function will be specified.

5. Analysis

The analysis deals with a case study of deictic and non-deictic anaphoric reference on two selected internet forums. Apart from a quantitative measurement used to calculate the prevalence of reference items, the research assesses their patterns of use, namely whether they are used similarly on both forums, and if not, then why this discrepancy appears. Before the analysis is conducted, methods and sources will be introduced.

5.1. Sources and Methods

Two internet forums which differ in their subject matter and target group were selected for the analysis. The first forum is focused on bodybuilding and fitness, and the second is dedicated to the video game *World of Warcraft* (WoW).

Both forums are threaded, and registered users are allowed to create new threads to discuss various topics. Specific threads on both forums were randomly selected to obtain desired language data. The only criterion was that discussions must revolve around answering the main thread question in which the user asks for help or opinion of some kind. Otherwise, no additional criteria were applied, and threads were selected randomly. Overall, three threads were analysed, i.e. one thread for the WoW forum and two shorter threads for the Bodybuilding forum to obtain an even number of responses. Links to the specific threads are provided in Appendix 1 containing the analysed corpus.

In total, 100 forum posts were analysed on both forums, i.e. 50 posts on each, consisting of 4701 words, with a mean post length of 47 words (range 2–319; median 26). From this, 2164 words were analysed on the bodybuilding forum, with a mean post length of 43 words (range 2–146; median of 30); and 2537 words were analysed on the Wow forum, with a mean post length of 50 words (range 2–319; median of 26). See Table 1 below.

Forum	Words in total	Post length in words
Bodybuilding	2164	$\bar{x} = 43$ (r = 2–146; $\tilde{x} = 30$)
WoW	2537	$\bar{x} = 50$ (r = 2–319; $\tilde{x} = 26$)
Total	4701	$\bar{x} = 47$ (r = 2–319; $\tilde{x} = 26$)

Table 1. Forum details

All utterances were hand-collected without using any software for corpus gathering. Obtained deictic and anaphoric expressions were categorised according to the framework proposed in the theoretical part. Additionally, non-referential expressions which must be distinguished from their deictic and anaphoric uses are noted (see corpus in Appendix 1).

Before moving onto the analysis of referring expressions, the format of both selected forums and their general language situation should be briefly described.

5.1.1. Bodybuilding Forum

Display formats of the selected forums are very alike. Both utilise a threaded format with a central topic question proposed by one user. Other users are then allowed to post their opinions below, creating the asynchronous and chronologically evolving discussion, consisting of user's opinions directed usually to the topic starter (the person who asks the central question). Besides, given the threaded nature of forums, users can reply to posts of other discussion participants as well.

The first forum to describe in more detail is the one dedicated to bodybuilding. Its display layout consists of the users' nickname, the date when they joined the forum, their age, number of posts, and reputation power based on their forum activity. In addition, users may upload their profile picture. The name of the thread is marked in bold, and the topic message is displayed beneath it. See Figure 2 below.

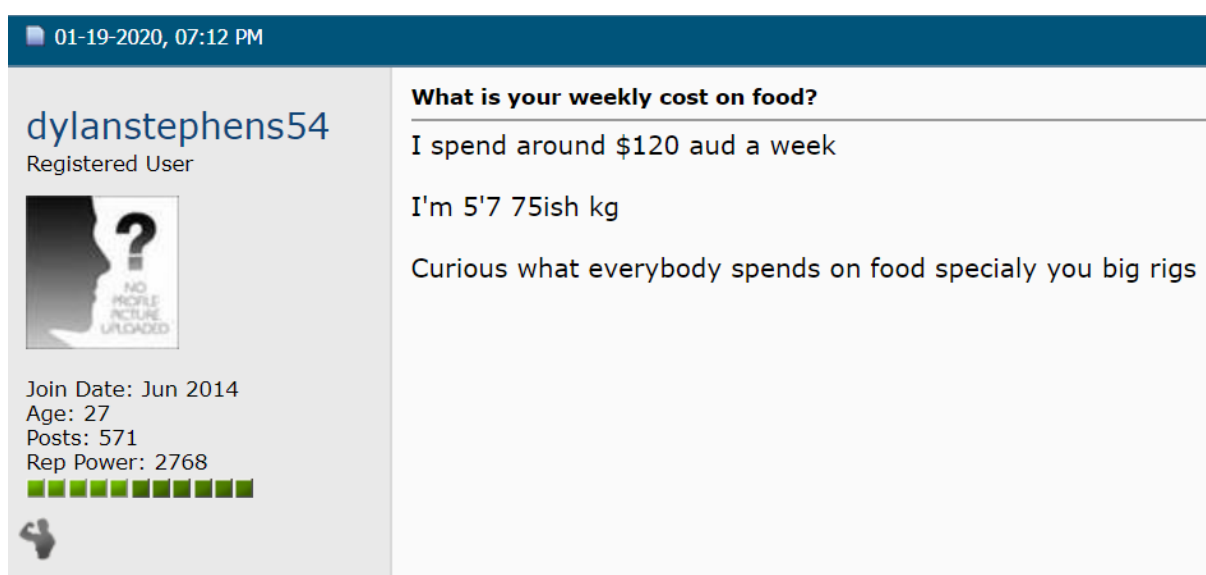


Figure 2. Layout of the Bodybuilding forum

Importantly, the exact date and time of the post are displayed above the section containing the users' information. This information might be of the crucial importance, especially from the perspective of temporal deixis, for users can refer to their deictic centre, i.e. *now*, without the need to express the exact coding time of the message. However, the data concerning the geographical location of the user are missing; hence spatial relations must not be taken for granted.

Regarding its general linguistic description, the language on the bodybuilding forum is not substantially different from other discussion boards. Posts are significant for their casual and informal style, consisting of elliptical structures, initialisms, colloquialisms, profanities and spelling/punctuation deviations and errors. However, the most distinctive feature seems to be, quite naturally, the frequent use of slang as used in bodybuilding and fitness. For illustration, see post (44) below. The expressions *cut* and *bulk* are slang words used among bodybuilders to describe the part of their season, traditionally involving periods of gaining bodyweight (*bulking*) and losing bodyweight (*cutting*).

- (44) Depending if cut/bulk cycle, but It averages 15-20/day now on bulk, so likely up to \$140 a week, which in LA that's cheap LOL

5.1.2. WoW Forum

The second analysed forum deals with various topics concerning the videogame *World of Warcraft* (WoW). As seen in Figure 3 below, although it differs graphically, its format contains similar information to that of the Bodybuilding forum. It includes the user's nickname, number of posts and other data, regarding the specific game content, such as the level and portrait of the user's character or the game achievement points. The name of the thread is displayed at the top of the screen, and the question text is shown below. Importantly, the forum displays the coding time of the utterance in a similar way to the Bodybuilding forum. In the right upper corner, the date of the post is shown and once the cursor is held over it, the exact time of the utterance appears. Nevertheless, similarly to the bodybuilding forum, the information about the user's geographical location is not present either.

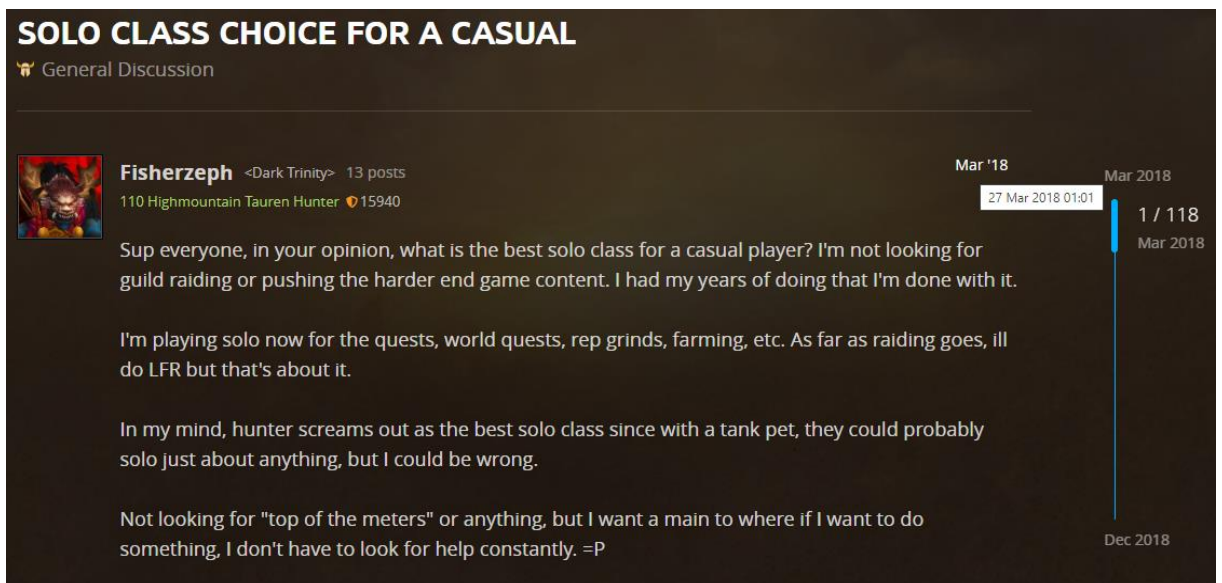


Figure 3. Layout of the WoW forum

The language of the WoW forum is comparable to that of the Bodybuilding forum, too. Yet, apart from slang expressions, there are frequent uses of fictive proper nouns including place, character and item names, which are parts of the game lore. For illustration, consider the post (45).

- (45) Affliction warlocks are the masters of solo play. Self healing baked into the DPS rotation, tank pet, able to conjure healing items, heal their tank pet, and preemptively battle res themselves.

Expressions such as *affliction warlocks*, *DPS rotation* (damage per second), *tank pet* or *res* (resurrection) are barely understandable unless one has particular experience with the game. Besides, uppercase textual shouting and letter layering (46) or dot hesitation markers (47) are also observed.

- (47) The Blood DK gnome is a MONSTER!!! [...]

- (48) I like Blood DK because you can just grab a ton of mobs at once and clear a section at a time..It does get a bit boring at times..I've died from falling asleep of boredom in the middle of fights a few times..[...]

Having outlined the most prominent features of the selected internet forums, I will now focus on the analysis of collected deictic and anaphoric expressions.

5.2. Analysis of Reference

Before individual categories of deixis and anaphora are discussed, the overall quantitative results of the study will be presented.¹⁴

The absolute number of collected expressions in the corpus is 534. From this 418 (78.3%) are deictics, and 116 (21.7%) are anaphoric expressions. Their relative frequency in total is ~11.35 times per 100 words (~8.89 times for deictic and ~2.46 times for anaphoric reference).

In 2164 words analysed on the bodybuilding forum, there are 277 (51.9%; relative frequency ~12.85/100 words) anaphoric and deictic expressions in total. From this 234 (84.5%; relative frequency ~10.82/100 words) are deictic, and 43 (15.5%; relative frequency ~2.03/100 words) are anaphoric.

On the Wow forum, 2537 words were analysed. There are 257 (48.1%; relative frequency ~10.13/100 words) anaphoric and deictic expressions in total. From this 184 (71.6%; relative frequency ~7.26/100 words) are deictic, and 73 (28.4%; relative frequency ~2.87/100 words) are anaphoric. See Figure 1 below.

By far the most prevalent type of deixis on both forums is that of person. As seen in Figure 2 below, when its exclusion is done, anaphoric reference immediately starts to prevail, especially on the WoW forum. From the remaining 77 expressions on the Bodybuilding forum, only 34 (44.2%; relative frequency ~1.57/100 words) remain deictic; similarly, on the WoW forum, from the remaining 99 expressions, only 26 (26.3%; relative frequency 1.03/100 words) are deictic. For an overview of reference in general, see Tables 2, 3 and 4 in Appendix 2. Now I would like to inspect each category of deixis separately and comment on the results in more detail.

¹⁴ Note that for a better orientation, analysis of reference will use a new numbering for examples, figures and tables. For a better illustration of the discussed phenomenon, parts of collected utterances are taken from the corpus and include the reference to the section of the corpus in which they are located (e.g. 1/R3, where the first number refers to the forum thread and R3 to the specific post). All presented charts and figures are also included in Appendix 2 to provide a comprehensive presentation of results following the corpus. Lastly, it should be noted that the analysis of this type remains highly subjective even when the set of criteria is prepared. Being an observer of the discourse, it frequently remains difficult to see through the real intention of the speaker; hence the following qualitative part of the analysis is rather a discussion.

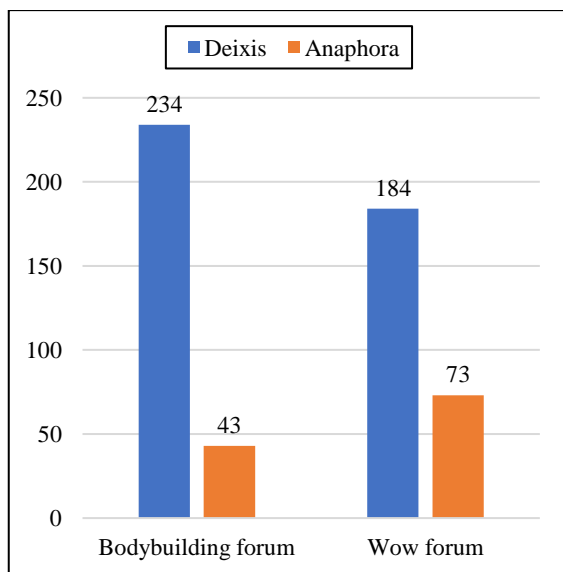


Figure 1. Reference distribution

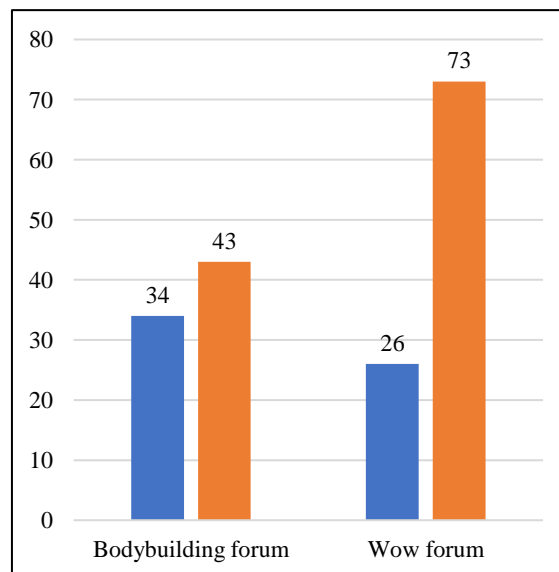


Figure 2. Reference distribution excluding person deixis

5.2.1. Deixis

In this first major chapter of the analysis, the attention will be devoted to deixis. First, the overall quantitative measures will be briefly introduced, and then each category will be targeted individually to offer a more detailed commentary. Note that Appendices 1 and 2 are fundamental for the whole analysis as they provide the analysed corpus and complete results.

Tables 5–7 in Appendix 2 present the overall results concerning deixis. Some general findings should be mentioned here. First, there is a massive prevalence of person deixis which accounts for 86.5% of all deictics on both forums; this is in alignment with the previously mentioned observations by Anderson (2015). Also, except for endophoric discourse deixis, the absence of the physical context naturally restricts the use of spatial and temporal deictics. Second, proximal forms are more frequent than distal, even when the exclusion of person deixis is made. This might support the theory of default egocentric view as shared by speakers, and, in the case of social deixis, the general principles of politeness as followed in conversations. Each category of deixis will now be scrutinised in separate chapters.

5.2.1.1. Person Deixis

The first category of deixis which will be investigated in more depth is that of person, realised predominantly by pure deictic shifters *I* and *you*. As previously stated, the key finding is that person deixis prevails significantly on both forums since it accounts for 358 (85.6%) of all

deictic expressions. From this, 200 (55.9%) appear on the Bodybuilding forum and 158 (44.1%) on the WoW forum (see Figure 3 below).

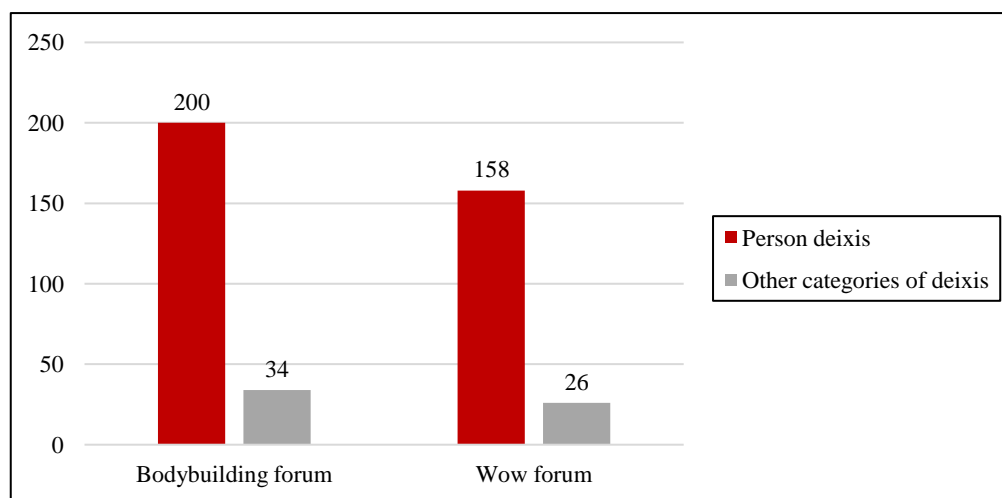


Figure 3. Distribution of person deixis compared to other categories

First, pure deictic shifters *I/we* and *you* will be inspected and then the attention will be turned to their other forms, i.e. accusatives and possessives *me, my, mine, us, our* and *your*. Lastly, somewhat rare occurrences of deictic reflexive pronouns *myself* and *yourself*, along with one instance of deictically used third-person *they*, will be addressed. For detailed results concerning person deixis, see Tables 8–10 in Appendix 2.

First and foremost, the attention will be paid to pure deictic shifters *I* and *you* because they are by far the most frequent person deictics on both forums. Before selected occurrences are examined, it is essential to draw some necessary quantitative conclusions. In total, there are 260 occurrences of both *I* and *You*, accounting for 72.6% of all person deictics observed (62.2% of all deictics). From this, *I* is more frequent than *you*, as it accounts for 185 (71.2%), whereas *you* for 75 (28.8%) of occurrences. From all 260 shifters, 146 (56.2%) occur on the Bodybuilding forum and 114 (43.8%) on the WoW forum. Therefore, given the slightly more total word count of the WoW forum corpus (2537 vs 2164 words), the distribution is moderately unequal, with the Bodybuilding forum deploying pure deictics more frequently. More significantly, a discrepancy in distribution between proximal *I* and distal *you* is observed on the Bodybuilding forum, where *I* accounts for 123 (84.2%) occurrences and *you* only for 23 occurrences (15.8%). On the WoW forum, the situation is somehow even since *I* accounts for 62 (54.4%) occurrences and *you* for 52 (45.6%). Some interesting findings will now be discussed. The thorough quantitative assessment is provided in Appendix 2.

The most intriguing fact is that, as it has been proposed, person deixis on the Bodybuilding forum shows the larger discrepancy between its proximal and distal forms than on the WoW forum (see Figure 4 in Appendix 2). This reflects the nature of the discussion, which is driven by the central topic question. It is especially apparent in the second thread in which the topic starter encourages other users to provide their opinions (1).

- (1) Curious what everybody spends on food specialy you big rigs. (2/TS)

The utterance-final *you*, introducing the vocative address *big rigs*, directly invites other participants to the discussion. They then provide their own opinions, containing, as a rule, the proximal first person *I*, identifying them as speakers and authors of the idea. Their responses then form rather direct answers to the central topic question about food expenses (2–4).

- (2) I probably spend about \$100 per week on typical food items, and sometimes I eat out. (2/R1)
- (3) \$25-35 I guess. I mostly cook everything. (2/R3)
- (4) I would say around \$300/week....I like sushi and filet mignon. I have at least one or sometimes both everyday. (2/R17)

In all above-mentioned instances, the proximal form *I* is used to identify the speaker, and, at the same time, there is no corresponding *you* used to address the author of the topic question. For this reason, the layering of proximal person deictics in the form of clause subjects gives rise to their prevalence. As stated in the theoretical part, this is caused by the analytical nature of English, where this explicit realisation appears. It is then especially palpable in such speech situations where speakers are prompted to provide information about their acts, like this case on the Bodybuilding forum. Speakers grammatically identify themselves by *I* multiple times within one post.

On the other hand, the occurrence of distal *you* referring to the topic starter is then scarce. If it appears, it is frequently generic in its use (5).

- (5) For just me it's like 210 up to 300 if you include coffee and energy drinks, going out to eat too [...] (2/R26)

In (5), the use of distal *you* might be classified as generic, referring not only to the topic starter but people in general. For this reason, it could be substituted with a more formal alternative *one*, which, of course, although formally correct, is not suitable for the informal communication

as held on the forum as it would feel somewhat awkward. However, some other distal shifters appear in this thread, but they do not refer to the topic starter but other participants of the discussion, providing their opinions (6).

(6) ??? 25-35 do you live off noodles? I cook everything also what do you eat? (2/R4)

In this post, the speaker refers directly to the addressee of the previous comment in the thread; hence this employment of *you* is strictly deictic and would not be considered generic under any circumstances.

I would like to ponder over the concept of generic *you* for a bit longer and inspect the situation on the second forum. It has been said that on the WoW forum, the distribution of proximal and distal shifters remains somewhat even (62 and 52, respectively). Nonetheless, upon the closer observation, one would notice that out of these 52 occurrences of *you*, 23 might be considered rather generic and thus non-deictic in nature. For illustration, see posts (7–9).

(7) I would go with hunter. Druid is an ok choice if you know how to play. You just moonfire everything and wait until everything comes to you if you're geared and know what you're doing. (3/R5)

(8) Mages are a good easy class for soloing. You can do lots of damage quickly and the bad guys will be hard pressed to damage you. :) (3/R16)

(9) Beastmaster hunter, you and your pet shall adventure merrily. (3/R49)

In all examples above, distal *you* identifies the addressee rather indirectly, for speakers seem to refer to characters of the videogame as played by players in general. Accordingly, *you* appears generic because the facts provided about the game apply not only to the addressee as presented by the person asking the central question but to all potential players of a particular videogame character (e.g. *druid*, *mage*, *hunter*). Indefinite pronoun *one* (in its appropriate form) would be again possible as a more formal substitution.

Before moving onto other forms of pronouns, I would like to comment on first-person plural *we*. It is used only four times on both forums, accounting just for 1.1% of all person deictics. From this, three uses are exclusive, and just one is inclusive. Three occurrences are found on the Wow forum (10–12), and just one appears on the bodybuilding forum (13).

(10) Druids. We do everything, and pretty well. (3/R1)

(11) Druid, we do it all, and look good doing it. (3/R24)

(12) Unless flat out bored of hunter, then you are already playing the right class. Other classes may have advantages in specific areas, but we are very close to jack-of-all [...] (3/R30)

(13) We have his kids half the time and they are about 100ish. (2/R26)

In statements (10–12) *we*, similarly to singular *I*, refers to players in general as identified with game characters, i.e. *druids* and *hunters*. Particular attention should be devoted to example (12), which treats the addressee of the utterance inclusively. In this utterance, *we* is used inclusively, identifying both the speaker and the addressee as members of one game class, i.e. *hunters*. However, in the topic question, there is no mention of the addressee's character. That is, it should not be possible for the other user to identify him inclusively as a member of the hunter group. Nonetheless, upon recalling the forum layout as presented in Figure 3 in Chapter 5.1.2., one can see that below the user's nickname, there is also information about his current character assigned to his forum account. Having been provided with this information, the other user could have treated the author of the topic question inclusively straight away. This shows that the forum layout may be crucial for valid interpretations because speakers tend to use all available hints to make their communication as economical as possible. The last example (13) is the only instance of *we* collected from the bodybuilding forum. It is undoubtedly exclusive, identifying the speaker and her husband.

The second part of the analysis concerning person deixis should focus on other expressions outside the *I* and *you* pair which, although the most frequent, are not the only forms of personal pronouns found in the corpus. It has already been stated that *I* and *you* together account for 72.6% of all person deictics. The rest are mainly their objective and possessive forms, i.e. *me*, *my*, *mine* for the singular; possessive plural form *our* for the first person, and *your* for the second person. Besides, the infrequent occurrences of deictically used reflexive pronouns *myself* and *yourself* are observed. Interestingly, one example of deictically used third-person plural *they* is present. They will now be discussed in more detail.

The second large group of person deictics consists of objective and possessive forms of first and second-person pronouns *me*, *my*, *mine*, *us*, *our* and *your*. In total, 90 occurrences have been collected. From this 53 (58.9%) occur on the bodybuilding forum and 37 (41.1%) on the Wow forum. Together they account for 25.1% of all person deictics (21.5% of all deictics). From the viewpoint of deixis, those forms of pronouns are distributed similarly as their more common nominative forms *I* and *you*, with the main difference being naturally in their grammatical

function. Nevertheless, some interesting tendencies regarding deixis might be observed. The proximal possessive *my* is found predominantly on the first thread of the bodybuilding forum, where 22 occurrences are found. Again, this tendency arises due to the topic question itself, which prompts other users to provide their opinions and experience. Especially important seems to be its last sentence, i.e. “did someone experience something similar?” As it has already been described when dealing with nominative *I*, the sentence prompts users to provide personal opinions regarding the problem. They are then apt to use possessive forms of the first-person pronoun (14).

(14) Second cup after my main lifts. That's usually enough to last for a few hours til my afternoon coffee.

Not a morning person either, I think my circadian rhythm is 26 hours. But I like working out in the AM cuz I often get mentally burned out at the office. But my "morning" workout is like 9 am. Usually no fatigue through the day. (1/R20)

In his answer, the speaker uses possessive *my* four times in one post to describe his very own routine and experience. It seems that possessives then carry an additional, somewhat emphatic function. They are used to personalise one's habits and opinions instead of presenting some general facts by opting for other determiners.

Similarly to its nominative and objective forms, the possessive *your* is used either purely deictically (15) or as a rather generic expression (16).

(15) How about splitting it into more smaller workouts, do you have any wriggle-room in your schedule to do that or do you already lift every working day? (1/R19)

(16) Beastmaster hunter, you and your pet shall adventure merrily. Or a warlock if you'd like to be a caster. (3/R49)

In (15), *your* refers to a possession of the addressee, i.e. the speaker refers to the schedule of the user who asks the main question. On the other hand, *your* in (16) might be viewed as generic, attributing the *pet* not only to the single addressee but to the particular videogame character as controlled by players in general.

Next, one occurrence of *let*-imperative (17) and one possessive first-person plural *our* is present on the Wow forum (18).

(17) Prot Warriors? Well, let's just say warriors have notoriously been weak at soloing since Vanilla WoW [...] (3/R47)

(18) I play solo, too, and I think pet classes are the best for our kind of play. (3/R31)

As it has been described in the theoretical part, *us* in the imperative structure with *let* can be understood as both inclusive and exclusive based on its form. When it is contracted, it is conventionally understood to be inclusive in nature, treating the addressee as a part of the group. Furthermore, it might be said that it carries a particularly persuasive intention from the author of the post towards the addressee. In this case, inclusive *let's* might be used to suggest that choosing the *warrior* class is not the optimal solution for the addressee. In (18) the possessive first-person plural *our* is inclusive, too, for the speaker identifies that he and the addressee share the same opinion and the same playstyle. No other inclusive forms are observed on forums and the remaining plural deictics, i.e. the second *our* in (3/R31) and *us* in (2/R9) are exclusive, referring only to the speaker and other players, or the speaker and his wife, respectively.

The next set of expressions which should be inspected are reflective pronouns *myself* and *yourself*. Although reflexives are generally anaphoric, three occurrences of their deictic use appear in the corpus. They account for 0.9% of all person deictics and occur only on the WoW forum (19–21).

(19) as a casual player myself DPS is likely what you'll do anyway. (3/R30)

(20) Hunter, with tank pet and BM like myself. (3/R42)

(21) Level all of the classes and figure out for yourself. (3/R10)

In all examples above, reflexive pronouns *myself* and *yourself* are deictic since they are not bound to any antecedent. Instead, they are used similarly to deictic shifters *I* and *you* to refer either to the speaker (*myself*) or to the addressee (*yourself*). The most intriguing appears example (20), where the author uses reflexive *myself* to identify himself. Typically, the object pronoun *me* would be of a grammatically standard form in this position; however, Huddleston and Pullum (2002, 1485) explain that in the informal style, such override reflexive might be used to emphasise the reference. Therefore, in (20), the speaker seems to accentuate the link between the hunter class and himself identified with the game character. Lastly, In example (21), the use of reflexive is an inevitable part of the phrase *for yourself*. It is used in the imperative structure as a straightforward response to the thread question and, concerning politeness, is deemed acceptable given the casual style of the forum.

The last and perhaps the most peculiar occurrence of person deixis to discuss concerns the deictic use of the third-person plural *they*. As postulated in the theoretical part, third-person pronouns are generally anaphoric, especially in written texts where they refer to previously introduced entities. Yet, one example of their deictic use was observed on the WoW forum (22).

(22) With the gear they gave her, as well as all the unsullied plate tokens this character had, She started on Arguss. (3/R31)

Since the shared physical context is missing on forums, this deictic use of *they* is odd. One would expect that the antecedent is first introduced and only then the pronoun *they* is employed, yet, as is seen in Appendix 1 where the full post is accessible in the corpus, the antecedent seems non-existent. Therefore, *they* is used exophorically and highly symbolically in nature, for one must have profound knowledge of the game and its community to interpret the utterance fully. However, even then the referent of *they* remains vague; it might be inferred that the speaker refers to developers of the game because there is an option to start the character with some basic equipment and continue from then on. That is, the utterance could hypothetically be paraphrased as “the gear developers gave her” or some alternative alike. It should be noted that this post is one of the most controversial in the whole corpus, and I will return to it when dealing with spatial deixis and pronominal anaphora.

Lastly, the sole occurrence of accusative *them* is observed (23). Nevertheless, I argue that it should not be regarded as deictic per se, for it utilises the fixed idiomatic phrase.

(23) I also really enjoy the, "dot em and forget em" aff playstyle while questing

The phrase “dot ‘em and forget ‘em” is a variation on another idiomatic expression “love ‘em and leave ‘em” and, therefore, it should be treated as non-deictic because it is taken as a fixed lexeme without changing its constituents, including the pronoun; its referential value is then questionable. This idiomatic pun then describes the way the speaker enjoys his playstyle (in the game, *dot* stands for “damage over time” which, once applied, deals damage automatically without any other actions towards the enemy).

To conclude, given the English sentence structure, person deixis remains by far the most frequent type of deixis found on both forums. The most frequent person deictics are nominative and objective forms of pure deictic shifters, i.e. proximal *I* and distal *you*. Their other forms, i.e. *me*, *my*, *mine*, *myself*, *we*, *us*, *our*, *your* and *yourself* are, quite naturally, less frequent. It further appears that both the question type and subject matter are essential factors, significantly

influencing the use of person deictics in the thread. It has been observed that on the Bodybuilding forum, where the central thread question explicitly invites participants opinions, the massive prevalence of the proximal form *I* is found, identifying speakers providing their views (123 occurrences of proximal *I* and only 23 occurrences of distal *you*). In contrast, on the WoW forum, the central thread question concerns the choice of the particular character in the videogame. Accordingly, although both proximal and distal shifters are of a similar distribution (62 and 52, respectively), the generic use of distal *you* prevails. This is because users tend to address the author of the thread question not directly in person but rather as a player of the game character in general. By doing this, albeit they refer to the author of the central thread question, they also refer to other players of the character. Other forms of person deictics seem to have no distinctive pattern and generalisations regarding their use in the discourse of selected forums are thus barely possible.

5.2.1.2. Social Deixis

Next, the attention will be directed to social deixis, which closely related to person deixis, for it involves the identification of speech act participants, too. Nevertheless, unlike the former, it concerns forms of address realised by vocatives, carrying the additional social markedness towards the addressee. Expressions revealing relationships towards entities located outside the speaker-addressee pair are not included as they do not directly disclose social information concerning the interaction between the speaker and the addressee. At the same time, the pronominal address *you* has already been treated under the category of person deixis as it, by itself, does not reveal social relations between participants.

In total, there are only five occurrences of social deixis, accounting for 1.2% of all deictic expressions.¹⁵ From this, 4 (80%) occur on the Bodybuilding forum and only 1 (20%) one the WoW forum. All of them are relational¹⁶ and proximal, showing the closeness of the speaker and the addressee. More specifically, as it has been hypothesised in the theoretical part, all expressions are familiarizers used to signal in-group solidarity (*man, friend, big rigs, mate, bro*)

¹⁵ This perhaps interestingly low number of occurrences appears to be in alignment with observations proposed by Biber and Conrad (2019, 195–196). They claim that openings and closings are frequently non-existent on forums. However, addresses and calls are naturally expected to be encountered especially in initial or final segments of one's post.

¹⁶ The term *relational* stands for the fact that addresses are not reserved for authorised recipients, e.g. *Mr President* (Huang 2014, 208–209).

and all function as final-position addresses. They will now be described in more detail (24–28). For more information, see Tables 11–13 in Appendix 2.

- (24) Seems it can be something to try. Thanks man. (1/R11)
- (25) Curious what everybody spends on food specialy you big rigs. (2/TS)
- (26) Wow thought mine was high bro. (2/R10)
- (27) How many sups do you take jesus mate (2/R25)
- (28) You're playing it my friend! (3/R29)

First, it should be commented on their form. As it might be expected, there are no occurrences of calls and all expressions are addresses. Again, this finding is given by the forum register itself, which lacks the shared physical context among its users. Regarding the aforesaid theoretical underpinnings, calls are gestural and utterance-initial, whereas addresses are symbolic and parenthetical, referring to the addressee during the speech event in which the addressee's attention is already seized. Naturally, calls are likely to be limited, for the forum layouts supplement the gestural use of vocatives. Simply put, users always know who is being addressed in the discussion because the forum graphics highlight the addressee. The collected forms of address will now be inspected individually to disclose their specific applications.

Given the proximal nature of obtained familiarisers, their prevalence is likely to reflect the relationship among the speakers forming a somewhat close-knit community. From the pragmatic perspective, these expressions might be seen as positive politeness strategy, emphasising the overall in-group solidarity. This could be observed especially in example (25) where the slang expression *big rigs* is used by the topic starter to address other participants of the forum, especially those who somehow excel in bodybuilding. Of course, the primary motivation of the speaker is not to flatter but to get the information he seeks; that is, to obtain an account of food expenses of heavier bodybuilders, naturally spending more on food. However, a precise selection of the address may help him to get the desired responses. One might even gloss that appreciating the physical appearance of bodybuilders would make them more eloquent, for it seems to be a common practise among them to praise each other's look while fostering positive mutual relationships.

Moreover, it seems that collected addresses might also possess some mitigating potentials when connected with exclamatory expressions (26–28). In (26) and (27), familiarisers *bro* and *mate* might be viewed to mitigate the sense of criticism. It enables participants to foster positive

relationships while discussing various issues and encourages further replies. In the only occurrence gathered from the WoW forum (28), the expression *my friend* seems to make the whole utterance less direct and more positive, implying that the choice is solely on the addressee himself. It might imply that there is no truly wrong choice, inviting the addressee to try on his own. If this exclamatory expression were used without the address *my friend*, it might be interpreted as a sign of irritation on the side of the speaker who is reluctant to provide help. Similarly, in (24), the expression *man*, paired with the act of thanking, might be seen to foster positive relationships by reducing the imposition as caused by speaker's previous asking for help (see corpus in Appendix 1 for the whole situation).

Based on the above-mentioned observations, it might be concluded that social deixis is not encountered frequently on the selected forums. There are only five expressions found, from which four are found on the bodybuilding forum and only one on the WoW forum. All of them are used in their utterance-final position, functioning as addresses and being relational in nature. As to their proximal deictic nature, their address function seems to be showing the in-group solidarity, respect and appreciation to foster the interaction with the community (24–25); and mitigating the exclamatory nature of expressions to prevent them from being interpreted as criticism (26–28).

5.2.1.3. Spatial Deixis

From the dimension of participants, I will now proceed to deictic expressions operating in the spatial dimension, which are realised by place adverbs and motion verbs. In total there are seven occurrences of spatial deixis, accounting for 1.7% of all deictics. From this, 4 (57.1%) appear on the Bodybuilding forum and 3 (42.9%) on the WoW forum. Six of them are motion verbs (5 instances of distal *go* and 1 of proximal *come*), and only one occurrence of the spatial deictic phrase *out there* is observed (see Tables 14–16 in Appendix 2).

This limited use of spatial deixis is given by the absence of a physical setting where spatial deictics naturally seek their referents. Although demonstratives *this* and *that* are common spatial deictic expressions in face-to-face communication, their spatial deictic use on online forums is severely restricted. When demonstratives are used, they are, as a rule, endophoric, i.e. discourse deictic or anaphoric (see the following Chapters 5.2.1.6. and 5.2.2.2., respectively). First, the collected occurrences of motion verbs *go* and *come* will be discussed (29–34) and then the single manifestation of spatial deictic phrase *out there* (35) will be investigated.

First and foremost, as it has been postulated in the theoretical part, it should be noted that deictic directionals present on forums are not of a typical gestural use as seen in a face-to-face conversation. Typically, motion verbs encode locomotion in a physical world, either towards or away from the speaker, frequently as parts of commands or requests. However, on forums, they appear to be used somewhat symbolically and thus less deictically per se, for they are employed when describing general facts, routines and habits proposed by users. Moreover, some idiomatically fixed phrases which barely describe any movement are found and must be excluded from the analysis. The collected occurrences will now be scrutinised.

From all collected motion verbs, 4 (66.7%) are observed on the bodybuilding forum, and all of them employ distal deictic verb *go* (29–32). Similarly to person deictics, it appears that their distribution is motivated by the central topic questions because in all instances *go* is used to present speakers' routines as a succession of events dependant one on another.

- (29) I wake up at 4. every morning then hit the gym and have a feed straight after then go to work [...] (1/R1)
- (30) I can handle up to about 200mg first thing in the morning and then go train and feel fine [...] (1/R8)
- (31) Excited enough to continue workout but tired enough not to go anywhere. (1/R18)
- (32) He doesn't pay for how often I go out to eat/order in at lunch, coffee, juice bar and energy drinks [...] (2/R26)

As seen in examples (29–30), distal deictic *go* is used to describe a transition from one physical location, state or activity to another. Speakers seem to treat these goals as distant from their deictic centre because they require a particular movement for this transition to take place. In (29), this involves the movement between the gym and the workplace. Similarly, in (30), *go* is used to depict the transition between taking 200mg caffeine in the morning and heading for the workout afterwards. Both goals, or perhaps destinations, are somehow distant from the speaker's previous deictic anchorage. Moreover, it appears that the distance is not strictly physical by itself but also somewhat temporal as combined with a temporal marker *then*. The speaker can take 200mg of caffeine when ready to work out without any significant physical movement needed to start the actual workout (e.g. drinking the pre-workout supplement when already at the gym). On the other hand, speaker's locomotion seems to be highlighted in example (31) as the speaker uses *go* to refer to overcoming the distance to change his position,

perhaps with a bit of reluctance (i.e. *tired enough not to go anywhere*). Lastly, in (32), it might be postulated that the speaker's usual deictic anchorage is "I, at home" and going out is, when taken literally, a particular movement away from his origo. However, *go out* is frequently used as a fixed phrase; hence its referential value describing a specific movement is questionable. For this reason, it appears borderline between the deictic and non-deictic use.

Interestingly, the situation is different on the WoW forum. There are two occurrences of deictic motion verbs (33.3% of all motion verbs collected) with one being distal *go* (34) and the second proximal *come* (33).

(33) You just moonfire everything and wait until everything comes to you [...] (3/R5)

(34) I would probably roll a hunter if I had to choose again, tho, as you can go tame the appearance of the pet you would like. (3/R31)

The most significant difference is that in these utterances, the deictic centre is not located in speakers but the addressee. Therefore, the deictic centre is shifted as the movements are presented from the addressee's viewpoint. Moreover, to be more precise, it could be said that the origo is not located in the addressee in person, but in characters he controls in the videogame. In (33), the speaker uses the proximal motion verb *come* to signal the movement towards the addressee's avatar marked with *you*. It might be then said that the speaker just observes the situation, as opposed to the bodybuilding forum where the speakers themselves are directly involved in the locomotion. The example (34) describes a similar phenomenon. The situation is described from the viewpoint of the game character; hence the addressee is rather generic, and any distal movement indicated by *go* is carried in the fictional game world, signalling that the player of the character must overcome certain in-game distance away from his potential in-game deictic centre.

The last and perhaps the most intriguing case of spatial deixis is seen in the example (35) as it is the only phrase utilising the demonstrative adverb *there* to encode a spatial deictic reference. Interestingly, it is found in the same post as the single occurrence of the deictically used third-person pronoun *they* described in the example (22) when dealing with person deixis.

(35) The fun thing about the Blood DK is that no pet is needed; You are just an unholy monster out there, on your own. (3/42)

As with deictic *they*, it must be inferred that the expression *out there* is used symbolically to refer to the in-game fictional world. That is, to interpret this utterance, one must know that *out*

there refers to the world as found in the videogame and not any other place. The correct interpretation is then based on the shared background knowledge among the forum participants.

Additionally, as mentioned earlier, there are many expressions where *go* is used non-deictically as a part of a fixed verb phrase or other somehow idiomatic non-deictic expressions (e.g. 36–38). In those instances, *go* does not encode any movement at all.

(36) The alarm goes off at 4am weekdays. (1/R15)

(37) I would go with hunter. (3/R5)

(38) This is how I'd rate the "easy" classes as far as questing goes. (3/R41)

To conclude, given the missing physical context, the use of spatial deixis on both selected forums is limited, and if they are used, they include mainly symbolically employed motion verbs which are, as a result, only partly deictic. Besides, slightly different uses of motion verbs are found on each forum. On the Bodybuilding forum, distal *go* is used to describe transitions between events in the speaker's routine as triggered by the nature of the topic question, somewhat inviting users to provide their routine descriptions. In contrast, the analysed thread on the WoW forum utilises motion verbs *go* and *come* to encode movements concerning fictional characters in the videogame world. Accordingly, the deictic centre is shifted from the speaker to the addressee and his in-game avatar. Furthermore, *go* is commonly used in an entirely non-deictic way, mostly as a part of phrasal/prepositional verbs or other idiomatic expressions which do not describe any movement at all.

5.2.1.4. Emotional Deixis

Although demonstratives rarely carry the spatial deictic function on forums, there are two occurrences where demonstratives *that* and *those* might be said to mark certain emotional distance (39–40). They account for 0.5% of all deictics, and their distribution is even, for one instance is found on each forum (see Table 17 in Appendix 2). Both occurrences and some borderline cases will now be inspected.

(39) I'm also a morning person so that helps, but the Ginseng has defiantly got me through those rough days. (1/R21)

(40) I'm not looking for guild raiding or pushing the harder end game content. I had my years of doing that I'm done with it. (3/TS)

The first example (39) is found in the first thread on the bodybuilding forum as a reaction on the post concerning the morning routines. It might be asserted that the speaker uses a distal demonstrative *those* adnominally with the noun phrase *rough days* to signal certain psychological distance. It is apparent from the noun phrase itself that the speaker treats *rough days* as something unpleasant; hence *those* might be said to emphasise the distance from this uncomfortable period. Similarly, in (40), demonstrative *that*, albeit used pronominally, might be viewed to signal the distance from the events previously mentioned in the discourse, i.e. “guild raiding or pushing the harder end game content.” Speaker may wish to employ the distal demonstrative not only as discourse deictic but with the additional emotional function, signalling the reluctance to go through the named events again. Nevertheless, it must be highlighted that these interpretations are highly subjective, and there may not be any emotional meaning added.

In this respect, there are more borderline cases which are not classified as emotionally deictic, yet they potentially might be (e.g. 41–42).

(41) I levelled as an Arcmage, and frankly mobs MELT in the face of what that class can do. Things die so fast that you rarely take much damage at all. (3/R46)

(42) I'm okay taking that 300mg pre mid day for a lunch time workout and The rest of my day is fine [...] (1/R8)

As might be seen in the corpus, in (41) and (42), both demonstratives *that* are primarily classified as anaphoric markers, linking the noun phrases they determine with their antecedents in the previous discourse. However, it might be argued that both also carry certain emotional markedness, yet in a different way, for they are not used to emphasise the distance. Instead, in (41) *that* appears to show respect to, or perhaps caution, regarding the class to which it anaphorically refers; the speaker emphasises how powerful the “Arcmage” class is. Similarly, in (42), *that 300mg* may show caution or respect, too, especially regarding the previous posts (see the corpus) where speakers treat 300mg of caffeine as a large amount which could make them feel “sluggish”. Nevertheless, in literature, such uses are not described as emotional deictics, and thus they are regarded as primarily anaphoric and not emotionally deictic in the quantitative analysis.

It might be summarised that there are two examples of emotional deixis, using distal demonstratives *that* and *those* to show the emotional distance from the specific facts or actions (39–40). Besides, some other examples might be considered emotionally marked, too; however,

given the missing theoretical consensus, these are not treated as emotionally deictic in the quantitative analysis in order to support the overall validity of the research.

5.2.1.5. Temporal Deixis (Lexical)

The next category of deixis to describe is that of temporal deixis, operating in the dimension of time and employing both lexical and grammatical means to encode time relations in the utterance. Due to the limited space of this paper, the analysis will focus solely on these lexical means, consisting mainly of deictic time adverbs. Tenses will not be analysed here, for their semantic analysis is a complex topic which lies beyond the scope of this paper, and would deserve a separate treatise.

In total, there are 16 collected expressions, accounting for 3.8% of all deictics. From this, 10 (62.5%) appear on the bodybuilding forum and 6 (37.5%) on the Wow forum. Additionally, 14 (87.5%) expressions are proximal (*now, right now, currently, presently, at this point, for the past 10 years*) and just 2 (12.5%) are distal (*next xpac and soon*). They will now be inspected (for details, see Tables 18–20 in Appendix 2).

As postulated in the theoretical part, the trend for using the proximal expressions is seen on both forums. This is seen especially in the second thread of the bodybuilding forum where the author of the topic question enquires others about their food expenses. Other users then describe their current expenditures; hence utterances are frequently marked with deictic time adverbs to emphasise the current state of things (e.g. 43–47).

(43) It averages 15-20/day now on bulk, so likely up to \$140 a week [...] (2/R2)

(44) Currently bulking hard so...about \$200 per week IF I don't eat out. (2/R8)

(45) \$200 a week-ish, currently on a bulk. (2/R18)

(46) I always try to spend no more than \$100. Currently on a bulk. When I was cutting it was maybe ~\$80 (2/R19)

(47) On a cut (currently) \$100. (2/R24)

In all examples above, speakers egocentrically refer to their current part of the season as they link their expenditures on food with either bulking or cutting. Accordingly, all deictics are symbolic in use since they refer to a broader temporal frame and not to the period restricted only to the moment of writing. This temporal frame is then estimated to last for several months

of the year; hence it might be observed that *currently* is generally preferred for its less instant nature than *now*.

Before the distal deictics are introduced, one instance of present perfect tense should be discussed (48). It might be viewed as lying in between of prototypically proximal and distal expressions.

- (48) I have been training or running at 5:00am for the past 10 years, and I'm fasted as well. (1/R5)

The expression *for the past 10 years* connects the distal (past) and proximal (now) frames. Combined with the present perfect, it signals the continuation of the habit (i.e. running) from the past to the present; hence, as Chilton puts forward, present perfect spans are treated as proximal (Chilton 2014, 41). Otherwise stated, they are interpreted from the proximal point of view where the fact that the situation is still true at the time of coding the utterance remains the most important.

Lastly, it should be commented on distal deictics. As expected, these are used scarcely, and there are just two collected expressions (49–50). Both refer to the future.

- (49) As my job schedule is going to change soon, the only time for me to train will be in the morning. (1/TS)

- (50) it looks like our self healing is getting pruned in BfA to an extent, so not sure if that will change the way aff quests next xpac or not. (3/R31)

In (49) time adverb *soon*, located within the periphrastic construction *be going to* refers distally to the near future as measured from the coding time of the post. To interpret the expression correctly, one must know the coding time to be able to draw some conclusions. Once the forum is accessed a year from the time the post was written, the receiving and coding time is already significantly different. Therefore, without being able to track the coding time back, one cannot assess whether the change is likely to have already happened or not. However, perhaps more interesting is the example (50). Here the noun phrase *next xpac* carries the temporal deictic meaning, given the initial deictic element *next*. The phrase refers to a coming season of the game as *xpac* stands for “expansion” which is additional, typically annually released content for the game. Accordingly, in this context, the phrase might be treated as synonymous with the deictic phrase *next year*.

To conclude, gathered temporal deictics are predominantly proximal, anchoring the message in the present moment corresponding with the coding time of the posts. Moreover, deictics are typically employed in their symbolic use as they include a broader temporal frame, describing the proximal situation spanning at least a few months. By contrast, the use of distal deictics is limited. This happens because distal events must be first introduced and only then referred to, especially on forums where participants do not share the background knowledge concerning their lives. For this reason, the use of distal time adverb *then* is anaphoric and will be dealt with in the Chapter 5.2.2.3.

5.2.1.6. Discourse Deixis

The last deictic category to describe is that of discourse deixis, which concerns reference to the non-nominal portions of discourse, ranging from just a single proposition to the whole paragraphs. It is realised by demonstratives *this* and *that*, third-person pronoun *it*, some utterance-initial discourse markers and directional discourse deictics. However, before the results are presented, it should be pointed out once again that what is here presented as discourse deixis, can well be described as anaphora by another researcher. As proposed in the theoretical part, discourse deixis is essentially endophoric, for it points to text segments. The main difference from traditional anaphora is that discourse deictics refer to the whole, somewhat more abstract non-nominal propositions, whereas anaphora co-refers with its nominal antecedent.

In the corpus, there are 30 occurrences of discourse deixis, accounting for 7.2% of all deictic expressions. Therefore, they form the second most prevailing group of deictics after person deixis. Their distribution on both forums is even, i.e. 15 on each; however, despite this even overall distribution, there are differences in numbers of individual expressions. On the Bodybuilding forum, the most frequent discourse deictic expression is demonstrative *that* with seven occurrences (46.7% of all discourse deictics on the Bodybuilding forum), whereas on the WoW forum the most frequent manifestation is demonstrative *this* with six occurrences (40% of all discourse deictics on the WoW forum). Other expressions include third-person pronoun *it* (7 occurrences), utterance-initial discourse marker *well* (2 occurrences) and the sole occurrence of discourse directional *above*. See Charts 21–23 in Appendix 2.

First, discourse deictics as realised by demonstratives *this* and *that* will be described in more detail (51–55).

- (51) I have cold brew at home to get out the door, pour a cut first thing upon entering the gym and carry it around with me sipping between sets. Second cup after my main lifts. That's usually enough to last for a few hours til my afternoon coffee. (1/R20)
- (52) \$60 to \$75 a week on whole food depending on what protein I get and then around \$30 week on supplements. That's on a 3200 calorie cut though. (2/R27)
- (53) Beyond that... all classes can actually solo relatively well. (3/R47)
- (54) BM Hunter = #1
 Affliction Warlock = #2
 Protection Paladin = #3
 Blood DK / Tank Druid = #4 (tie)
- This is how I'd rate the "easy" classes as far as questing goes. (3/R41)
- (55) I prefer my Ret Pally for soloing though. She can self heal, has powerful abilities, can handle mobs.
- This is only for questing. I don't do dungeons/raids or PvP. (3/R39)

In all examples above, demonstratives *this* and *that* point to former propositions, which together make one's message. Demonstratives then introduce another proposition, adding new information or summarising the text segments they refer to. Based on the observations, it appears that there is no difference between uses of *this* and *that* from which one could make any generalisations. The traditional deictic dichotomy based on distance, i.e. proximal and distal, does not seem to be applicable as both demonstratives are used to point to the immediately preceding discourse in a similar manner. Yet, the overall prevalence of demonstrative *that* is observed. With 11 occurrences, it accounts for 36.7% of all discourse deictics. This prevalence is in alignment with data presented by Biber (1999, 349–351) and Ledvinka (2011, 18), who offer that in conversations, demonstrative *that* is more frequent than *this*. Given the fact that speakers on forums frequently utilise their language similarly to face-to-face conversations, it seems likely that this also involves the distribution of individual demonstratives.

Apart from demonstratives, third-person pronoun *it* can possess discourse deictic functions, too. However, it is more frequently purely anaphoric, being linked to one specific nominal antecedent, or indeterminate/non-referential. In the corpus, there are six occurrences of discourse deictic *it* in total, accounting for 20.8% of all discourse deictics. Its distribution is again relatively even; three occurrences are found on the Bodybuilding forum and four on the WoW forum. Some examples will be briefly commented upon (e.g. 56–57).

(56) I wake up at 4. every morning then hit the gym and have a feed straight after then go to work never really feel slugging from it aslong as I eat straight after workout.

(57) Seems it can be something to try. Thanks man.

In (56), *it* is classified as discourse deictic because it seems to refer to the whole sequence of events. It might be assumed that the speaker refers to all events combined, i.e. waking up early, going to the gym and having breakfast. The third-person pronoun *it* thus refers to the whole routine and not to a single nominal antecedent. A similar situation is seen in (57) where *it* seems to cross the post boundaries and refer to the help as provided by another user, concerning different dosing and timing of caffeine (see the full thread in the corpus). This help is, again, provided by the sequence of verbal propositions; hence it remains difficult to choose the specific nominal antecedent. Accordingly, *it* may be viewed as introducing the conclusion of the prior discussion held between the two users.

Apart from typically indexical expressions as represented by demonstratives *this* and *that* or the third-person pronoun *it*, discourse deixis is also encoded in certain utterance-initial discourse markers and deictic directionals. In the corpus, these are expressions *well* and *above* which are observed in three cases, accounting for 12.5% of all discourse deictics. All three occurrences are found on the Bodybuilding forum (58–60).

(58) Well I already take too much of it lol

(59) Well nutrition is not an issue for me, I believe.

(60) As highlighted above diet and eating schedule will play a massive part.

In (58) and (59), *well* is a discourse marker used to relate the utterance it introduces to the ideas proposed before. Nevertheless, apart from functioning as linking devices, they appear to possess some additional functions. In both examples, *well* seems to act as a face-threat mitigator,

making the disagreement with the addressee's ideas less direct.¹⁷ It might be argued that in (58), the speaker reacts to the comment offering that he should drink more coffee. He might wish to signal that this coffee advice is somewhat obvious and erroneous, for he already drinks plenty of coffee with no impact on his energy levels. Then in (59), the speaker may imply a disagreement with other user's hints that nutrition might be the cause of his problems. However, instead of doing it in a direct and somewhat less polite way, the speaker opts for *well* to mitigate the response to some extent. Lastly, in (60), the traditionally spatial deictic *above* applies the concept of the physical space to the written text. By signalling that the desired information is located in the previous posts, the speaker treats the text as somewhat physically and points towards preceding posts. However, it should be noted that such reference is very abstract, and the only information which is being disclosed is that the referred information is to be found somewhere in the previous discourse segments. Therefore, it remains solely up to the speaker to retrieve it from the whole thread.

To summarise the whole topic, it could be argued that discourse deixis, similarly to the anaphoric reference, is endophoric as it operates inside the textual dimension. Accordingly, it represents a special means of grammatical cohesion, binding discourse elements together, especially when more structured posts are provided. The main distinction from nominal anaphora is the fact that discourse deictics operate with somewhat superordinate discourse elements. Accordingly, they refer to whole text segments and not just to their nominal parts and, by doing this, they allow speakers to assign additional information to larger portions of text both logically and economically.

5.2.2. Anaphora

Having inspected the last category of deixis, I should now focus on selected means of anaphoric reference. In the theoretical part, it has been postulated that the register of online forums is prone to employ endophoric use of traditionally deictic (exophoric) expressions. In order to analyse deixis thoroughly, it is essential to focus on those anaphoric expressions which can be both deictic and anaphoric, depending on their use. In this respect, three types of anaphora are analysed. According to the provided theoretical framework, these involve pronominal anaphora, making use of third-person pronouns and reflexives; demonstrative anaphora, employing demonstratives *this/these* and *that/those*; spatial anaphora, utilising demonstrative

¹⁷ This observation is supported by Jucker, who describes that *well* can mitigate a speaker's disagreement with certain assessments (Jucker 1993, 444).

adverbs *here* and *there* to refer to previously introduced location; and temporal anaphora, using *then* to show temporal relations as realised within the text. There are, of course, more types of anaphoric expressions; however, as the work focuses primarily on deixis, they are not included in this analysis. The main quantitative measurements will now be introduced. Afterwards, the attention will be devoted to the specific categories of anaphora.

In total, there are 116 anaphoric expressions, accounting for 21.7% of all referring expressions obtained. From this, 78 (67.2%) are pronominal anaphora, 20 (17.2%) demonstrative anaphora and 18 (15.6%) temporal anaphora. Interestingly, no instances of spatial anaphora are observed. As seen in Figure 5 below, their overall distribution on selected forums is uneven. There are 43 (37.1%) anaphoric expressions on the Bodybuilding forum and 73 (62.9%) on the WoW forum (see Tables 24–29 in Appendix 2 for details).

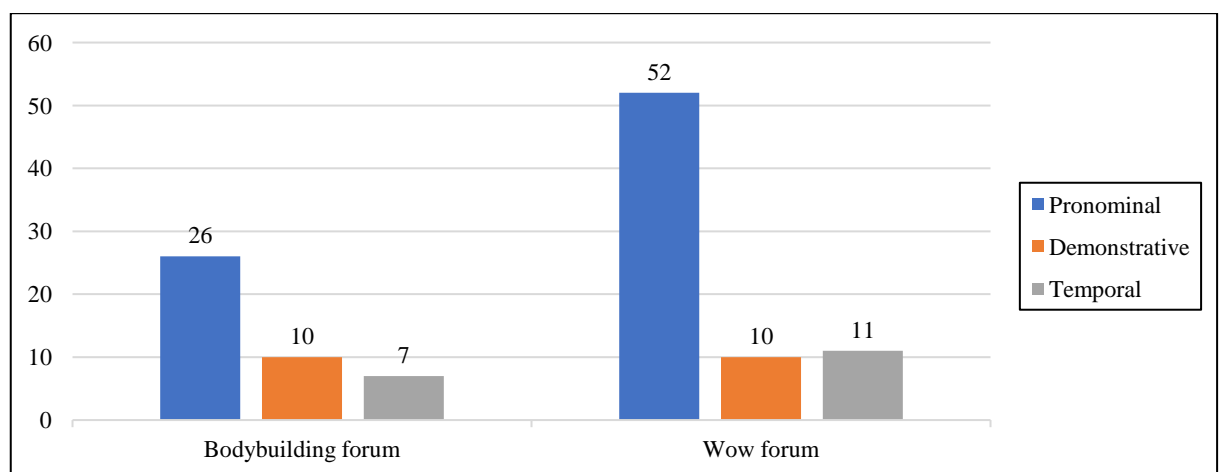


Figure 5. Distribution of anaphora on forums

5.2.2.1. Pronominal Anaphora

Pronominal anaphora is the most prevalent type accounting for 78 (67.2%) occurrences in total. From this, 26 (33.3%) expressions occur on the Bodybuilding forum and 52 (66.7%) on the WoW forum. However, it must be noted that this perhaps strikingly uneven distribution is given primarily by one post on the WoW forum which itself contains a co-referential chain consisting of 22 pronominal pro-forms *she* and *her* (see below). Some collected instances of pronominal anaphora will now be inspected.

I should start with perhaps the most interesting post of the whole analysis, making use of the extensive layering of third-person pronouns *she* and its possessive forms *her* (62).

- (62) She basically tore Arguss a new one, soloing. Then She got a BIS shoulder legendary, after about a week, from an emissary. Then She got a BIS chest legendary, about a week later or so, from a chest on Arguss. Then She REALLY tore stuff up. Then She kept getting pieces of gear from greater invasions, WHAT A JERK. (3/R42)

Even in this short excerpt of the whole post, there is a monotonous and somewhat redundant repetition of *then* and third-person singular *she*. This pro-form *she* co-refers with the previously mentioned noun phrase *The Blood DK gnome*, identifying the in-game character as played by the speaker (see Appendix 1 for the whole post in the corpus). In total, the post contains a co-referential chain of 22 pro-forms. This is an exceptionally high number, especially given the mean forum post length of 50 words, and it severely affects the total quantitative measures. It might be argued that in this post, the spoken language features are especially pronounced as the writing is impromptu, and sentences feel somewhat run-on.

Apart from *she* and *her* which are almost exclusively used in the post as mentioned above, the next most frequent anaphoric personal pronouns are third-person singular *it* and plural *they*, prevailing on the Bodybuilding and WoW forum, respectively. This distribution is again driven by the nature of the central thread question. *They*, along with its other forms *their* and *them*, substitute the game class which is being described in speakers' posts (63–64).

- (63) My vote is for deathknight. At this point they can handle anything you need them for. (3/R2)

- (64) Having said that, I didn't really experience any problems with my Arcmage. They chew through mobs something ferocious. (3/R45)

As seen in the examples above, *they* co-refers with and further substitutes the noun phrases identifying particular game classes. In this respect, one important observation should now be highlighted. Despite its singular antecedent, the third-person pronoun is used in its plural form *they*, implying that every character belonging to a certain class is assumed to have particular abilities, although playstyles can vary significantly among players. It is of a general rule that in the game, each player possesses just one character of the given class.

Similarly to *they*, *it*, being dominant on the Bodybuilding forum, substitutes noun phrases which frequently refer to a type of food or certain activity (65–66).

(65) I have stopped buying fresh fruit and replaced it with frozen fruit. Much much cheaper that way. (2/R5)

(66) Caffeine doesn't help, I can take any amount and it won't have any effect on me. (1/R17)

In both examples above, *it* is used to substitute the noun phrases which have been mentioned earlier in the utterance, i.e. “fresh fruit” in (65) and “caffeine” in (66). Nonetheless, in the corpus, there are also some examples of *it* where the identification of single antecedents is barely possible (e.g. 67–68). In such instances, it is neither possible to choose one nominal antecedent nor could it be said that *it* points to a whole proposition as in the case of discourse deixis.

(67) You get used to it. (1/R6)

(68) Average ~80USD. If I eat out it can be hell of a lot more. Most food is bought in bulk too. (2/R14)

Of course, both sentences are understandable, given their context in the discussion. *It* in (67), if referential at all, could refer either to the morning workouts or to speaker’s condition of feeling tired. It is not known to what the addressee should get used to exactly. The similar issue is seen in the second example (68). The sentence is legible, for one can infer that *it* refers to the food expenses; however, no such corresponding nominal phrase is introduced in the text. One could then conclude that, on some occasions, *it* is neither purely referential nor traditionally grammatical. For this reason, such unclear cases are subsumed in the category of indeterminate reference and are thus excluded from the quantitative analysis to enhance its overall reliability. Yet, they are indicated in the analysed corpus.

Other pronominal references are used rather scarcely, and they are not particularly interesting for the analysis as they are just pro-forms of their nominal antecedents. Instead, the attention will be paid to the demonstrative anaphora.

5.2.2.2. Demonstrative Anaphora

The second type of anaphora to describe is realised by demonstrative pronouns *this/these* and *that/those*. Although their prototypical function is deictic, in the written texts of the selected internet forums, they are frequently used anaphorically when they refer to specific nominal antecedents realised earlier in the text.

In total, there are 20 occurrences of anaphoric demonstratives, accounting for 17.2% of all anaphoric expressions. Their distribution is perfectly equal as ten are found on each forum. The most frequent demonstrative is *that* with 11 (55%) occurrences, followed by *this* with 7 (35%) occurrences. The remaining three instances involve plural *those*, accounting for 10% of all demonstrative anaphors. I should briefly illustrate and comment on their two patterns of use as described in the theoretical part, i.e. adnominal (69) and pronominal (70).

(69) Personally, I recommend trying a Mage. I found as my time playing a Mage that it was a lot easier to learn this class than other specs I have tried. (3/R22)

(70) I have solo-leveled every DPS class. The "whole group" of hunter soloing is simply much easier. This is the character I use for Argus, for farming, and for anything that is difficult. (3/R28)

Anaphoric demonstratives can be used adnominally as determiners of the noun phrase, substituting the antecedent (69), or less frequently alone when they pronominally point to their nominal antecedent (70). Nevertheless, in both cases, their function remains anaphoric because they refer to previously mentioned expressions (i.e. "mage" and "hunter", respectively).

Upon the close observation of the corpus, it is apparent that there is a discrepancy between pronominally used *this* and *that*, although their distribution is rather even when used adnominally as determiners (see Figures 6 and 7 below). Again, these findings are in alignment with observations as proposed by Biber et al. (1999, 349-351) and Ledvinka (2011, 18) who observed that in conversations, *that* is more prevalent in its pronominal use, although in adnominal function, both *this* and *that* remain somewhat equally distributed. It could be said that since discussion forums are frequently linguistically close to the register of conversation, similar findings concerning demonstratives are observed in this case study, including the prevalence of *that* in its discourse and emotional deictic functions.

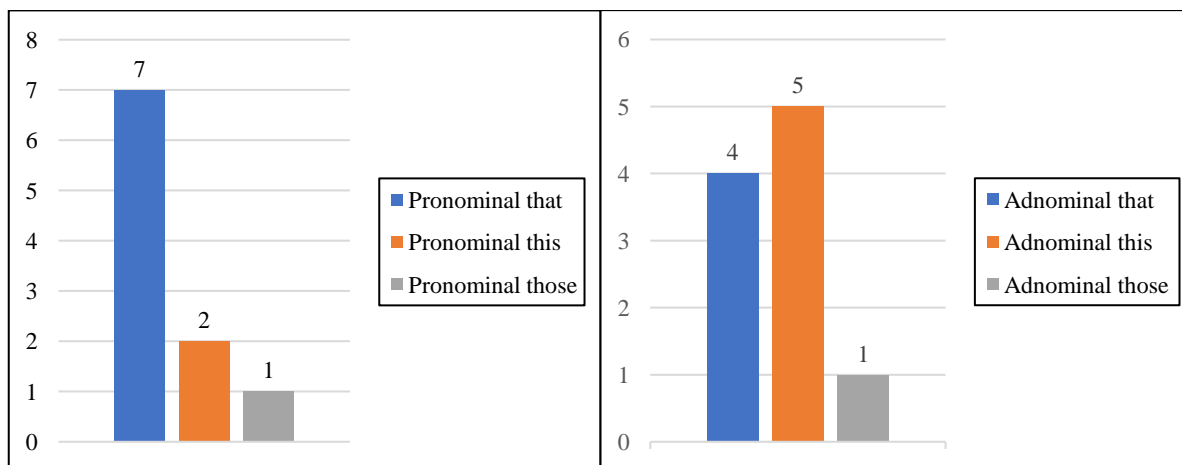


Figure 6. Prenominal demonstratives

Figure 7. Adnominal demonstratives

5.2.2.3. Temporal Anaphora

The last type of anaphora encodes non-deictic temporal relations as realised within the textual dimension. In the analysed threads, those are accomplished by traditionally deictic time adverb *then*, and in one case by phrase *at that point*. In total, there are 18 occurrences, accounting for 15.6% of all anaphoric expressions. From this, 7 (38.9%) are found on the bodybuilding forum and 11 (61.1%) on the Wow forum. For illustration, consider examples (71–72).

(71) I wake up at 4. every morning then hit the gym and have a feed straight after then go to work never really feel slugging from it aslong as I eat straight after workout. (1/R1)

(72) I eat immediately after the workout, and usually get some more caffeine at that point as well. (1/R15)

In (71) *then* is not used deictically, for it denotes the generic sequence of events temporally anchored in the text and not in the extralinguistic time. Therefore, it is anaphoric as it points to the time after the previous event introduced in the discourse (i.e. after waking up, the speaker goes to the gym, and after that, the speaker goes to work). This distinction based on the difference between extralinguistic and textual temporal relations is of vital importance because *then* is still being traditionally referred to as a deictic time adverb. It appears that this labelling is erroneous, especially on forums where the shared temporal context among participants is typically missing. Apart from the remaining examples of *then* encoding the temporal sequence, no other occurrences of its anaphoric reference to specific temporal expressions are present.

Apart from *then*, in one instance, anaphoric temporal reference is accomplished by phrase *at that point*, referring to the time “immediately after the workout” made explicit earlier in the utterance (72). Accordingly, given this co-text availability, it is not deictic because there is no need of the extralinguistic context for the correct interpretation.

Lastly, it must be said that *then* is frequently employed in a non-referential way, when it introduces the result (73), addition (74) or order (75).

(73) If you want something with faster que for lfr or lfd then a druid or a pally would be better. (3/R21)

(74) \$60 to \$75 a week on whole food depending on what protein I get and then around \$30 week on supplements. (2/R27)

(75) My fave solo is Balance Druid, then Beast Master Hunter. (3/R7)

In (73), *then* is not referential, for it introduces the result of the presented condition. Similarly, in (74), *then* is used instead of *also* to show addition and in (75), to introduce the order of choice concerning the videogame characters.

It might be concluded that anaphoric reference, along with discourse deixis, is frequently employed on the selected forums. As demonstrated above, apart from person deictics, other deictic expressions are utilised infrequently due to the lack of the shared physical context among forum users. For this reason, speakers must first establish the entities of reference linguistically in the text itself, and only then they can refer to them anaphorically. For this reason, anaphoric reference is an essential means of grammatical cohesion, for anaphors substitute, and hence frequently reduce the nominal elements in the discourse, halt the repetition and make the text less redundant, more comprehensible and logical. They allow to prolong the continuation of the already established topic; hence makes one’s post highly informative and economical at the same time.

The most frequent type of anaphora observed in the analysis is pronominal anaphora, substituting the previously mentioned noun phrases, which are almost causally dependant on the form of the thread question which naturally determines the following content of the discussion. It is observed that in the analysed threads of the Bodybuilding forum, pro-forms frequently substitute types of food or a particular activity. By contrast, on the WoW forum they refer exclusively to the in-game characters, often showing the gender of the character by selecting the specific form of a third-person pronoun.

Other, less frequently used types of anaphoric reference are demonstrative anaphora and temporal anaphora. The former employs demonstratives *this*, *that* and *those* in both their adnominal and pronominal functions, with pronominally employed *that* being significantly more frequent than *this*. The latter concerns the temporal relations realised within the textual dimension, utilizing mainly adverb *then* which marks the temporal sequence within one's utterance. Additionally, one case of phrase *at that point*, referring to the previously introduced temporal anchorage, is found.

6. Conclusion

Reference is considered a fundamental part of every natural language, and thus it has been extensively interdisciplinarily studied. However, the comprehensive research concerning the specific realisation of English deictic expressions in the electronic register of online discussion forums is lacking. Accordingly, the main aim of this paper was to explore the use of deictic and subsequently non-deictic anaphoric reference on the selected internet forums. After presenting the theoretical framework based on numerous relevant sources, the analysis was carried out in the form of a case study when two distinct internet forums (i.e. the Bodybuilding forum and World of Warcraft forum) were selected, and three chosen threads were then scrutinised.

Although the analysis is basically a case study of two specific sources, some generalisations concerning deixis and non-deictic anaphoric reference can be drawn. First, it has been observed that the absence of the physical context in forum register is crucial for the distribution of deixis. Apart from person deixis, which is, given the analytical type of the English language, overtly realised in the English sentence structure, and discourse deixis which is, however, essentially endophoric, other deictics are employed scarcely. By contrast, third-person pronouns and other traditionally deictic expressions, including demonstratives (*this* and *that*) and time adverbs (*then*) are predominantly anaphoric.

Furthermore, concerning the distribution of individual deictic and anaphoric expressions, the forum layout and topic questions themselves have proved to remain crucial. The type and subject matter of the topic question seems to determine the subsequent use of both deictic and anaphoric expressions. Accordingly, one can expect to find an overt use of proximal personal deictics when asking other users to provide their opinions, and, on the other hand, the prevalence of their distal counterparts when asking for help in the first person.

Apart from the thorough quantitative assessment, other findings concern specific uses of individual expressions. Those include, for instance, the distribution of proximal and distal forms of deictics, clusivity of the first person, generic uses of second-person pronouns, the character and use of motion verbs, the motivation behind the use of social deictics, or emotional markedness of demonstratives. Since it is not possible to list all discussed tendencies here, only the most general findings will be presented. For detailed qualitative results, see Appendices 1 and 2. For a discussion, see Chapter 5.

In the case study, 100 forum posts (i.e. 50 on each forum) were analysed with a total word count of 4701 words and the mean post length of 47 words. In total, 534 referential expressions with a relative frequency of 11.35 per 100 words have been collected. From these, 418 (78.3%, relative frequency of 8.89/100 words) are deictic, and 116 (21.7%, relative frequency of 2.46/100 words) are anaphoric. Nevertheless, both forums employ these expressions differently. On the Bodybuilding forum, there are 277 referential expressions in total, accounting for 51.9% of all referential expressions. From these, 234 (84.5%) are deictic, and the rest, i.e. 43 (15.5%) are anaphoric. On the Wow forum, there are 258 referential expressions in total, accounting for 48.1% of all referential expressions. From these, 184 (71.6%) are deictic, and 73 (28.4%) are anaphoric. For a presentation of all results, see Appendix 1 with the analysed corpus and Appendix 2 showing the complete results.

In connection with the quantitative measurements introduced above, some interesting findings have been observed. First, a striking prevalence of deixis is seen on both forums. Nevertheless, upon closer scrutiny, it is evident that the most prevalent deictics remain that of person. In total, there are 358 person deictics, accounting for 85.6% of all deictic expressions and 67% of all referential expressions collected. When the exclusion of person deixis is made, the remaining 60 deictic expressions account only for 14.4% of all deictics and just 11.2% of all referential expressions. They are distributed as follows: 30 (7.2%) are discourse deictics; 16 (3.8%) are lexical temporal deictics; 7 (1.7%) are spatial deictics; 5 (1.2%) are social deictics; and just 2 (0.5%) are emotional deictics.

Apart from the quantitative measurements, tendencies in the use of both deixis and anaphora have been investigated. First, it has been observed that the form and the subject matter of the main thread question, quite naturally, seem to determine the distribution and frequency of collected deictic and anaphoric expressions. This is especially pronounced in the distribution of expressions identifying participants of one's message, i.e. in person deixis and pronominal anaphora. On the Bodybuilding forum, proximal forms identifying the speaker with *I* prevail significantly over distal *you*, which is used to refer to the addressee (172/28 instances). By contrast, on the WoW forum, their distribution is more even (92/67 instances). Upon closer scrutiny, it has been observed that this discrepancy arises because, on the Bodybuilding forum, speakers are invited to provide their own experience and opinions, resulting in a layering of the first person *I* to identify individual users. On the other hand, Wow forum invites speakers to a discussion where the addressee is more involved; hence more frequently targeted. At the same time, the personal opinions of speakers are less common, and thus *I* is less frequent in

comparison to the Bodybuilding forum. Additionally, it has been observed that distal *you* on the WoW forum is frequently utilised generically and hence rather non-deictically, for speakers use it to refer to the character of the videogame as played by players in general and only by the addressee.

Although person deixis is by far the most prevalent, other categories are encountered, too, but apart from discourse deixis, their occurrence is rather scarce. This is naturally given by the forum register lacking the natural physical context. Accordingly, speakers do not engage in a face-to-face conversation where they deictically refer to entities in their vicinity. Discourse deixis with 30 occurrences remains the second most prevalent type. It is realised mainly by demonstratives *this* and *that* which are used to refer to the non-nominal segments of the discourse. Regarding the remaining types of deixis, they are used sporadically. Collected examples of spatial deixis involve almost exclusively symbolically used motion verbs (*go* and *come*) used mainly to describe speakers' routines, especially on the bodybuilding forum. Next, temporal deictics, are strictly restricted to their proximal forms (mainly *now* and *currently*) which are utilised more often on the Bodybuilding forum as speakers use them to describe their current parts of the season. Social deixis is realised exclusively by vocative addresses in the form of proximal familiarisers, marking the in-group closeness and solidarity. Its prevalence is palpable on the Bodybuilding forum. Lastly, emotional deixis concerns use of demonstrative *that* employed to show a distance from certain events. Two occurrences have been collected in total and both from the WoW forum.

However, given the written medium of the communication and absence of the shared physical context, typically deictic expressions are frequently used non-deictically when their reference is anaphoric. In parallel with person deixis, the most prevalent type remains pronominal anaphora, employing the non-deictic use of third-person pronouns to substitute the noun phrases and halt their repetition. For this reason, it is prevalent on the WoW forum due to the nature of the discussion itself. Speakers there use third-person pronouns to refer to the game characters they describe. Next, demonstrative anaphora, making use of demonstratives, is employed equally on both forums. Yet the overall prevalence of adnominally used *that* over *this* is noted. Their adnominal determiner function is then rather equal. This finding might be said to be in alignment with previous research done on the register of conversation, which selected forums are generally close to. Lastly, temporal anaphora employs almost exclusively adverb *then* encoding the temporal relations within the text. This finding is interesting as *then* is being

frequently used as a textbook realisation of distal temporal deictics; however, as present in the written register of forums, it is primarily anaphoric and not deictic.

Given the overall results of the analysis, some suggestions for further studies can be proposed. On account of the limited space of this thesis, grammatical temporal deixis as realised by tenses was not analysed; hence it might be targeted in the future. Additionally, as mentioned above, the distribution of demonstratives *this* and *that* suggests that their use follows the pattern as observed in the language of conversation. Nevertheless, as the analysis focused on deixis in general, not enough instances were collected to draw any reasonable conclusions. For this reason, a study focused only on demonstratives in the register of forums might be realised in the future.

Resumé

Deiktická reference patří mezi základní stavební prvky každého přirozeného jazyka a tvoří tak jednu z lingvistických univerzálií. Z tohoto důvodu byly deiktické výrazy intenzivně zkoumány celou řadou oborů včetně lingvistů, filosofů či psychologů. Komplexní lingvistická studie, která mapuje výskyt těchto výrazů v kontextu internetového fóra, ovšem chybí. Z tohoto důvodu si tato práce klade za cíl prozkoumat anglické výrazy zejména deiktické (exoforické) reference; případně pak nedeikticky užitá reference anaforické (endoforické) na vybraných fórech. Cílem analýzy je tedy prozkoumání jazykové situace jak z pohledu kvantitativního, tak následně kvalitativního výzkumu, kdy jsou vybrané příspěvky interpretovány s ohledem na jejich funkci v textu.

Práce je standardně členěna na dvě základní části, a to na část teoretickou a praktickou. V části teoretické jsou na základě relevantní literatury popsány nejprve koncepty deiktické a anaforické reference společně s nereferenčním použitím tradičně referenčních výrazů, které je třeba z následné analýzy vyloučit. Poté jsou stručně vyloženy lingvistické poznatky týkající se užívání jazyka v internetové komunikaci, zejména pak při diskusích na internetových fórech. Závěrečná kapitola teoretické části shrnuje poznatky o deiktické a anaforické referenci v kontextu internetového fóra a slouží tak jako přechod mezi částí teoretickou a částí analytickou, která z ní následně vychází.

Jelikož je práce zaměřena zejména na referenci deiktickou, následně jsou klasifikovány pouze ty anaforické výrazy, které mohou být užitý i deikticky. Tento výběr umožňuje nahlédnout na to, jak ovlivňuje registr internetového fóra používání deiktických výrazů. Vystává totiž otázka, nakolik bude deixe aplikována v diskurzu, který sice svou charakteristikou často připomíná mluvený jazyk běžné konverzace, ovšem neodehrává se ve fyzickém kontextu sdíleném uživateli dané diskuse. Zajímavé je tedy sledovat, nakolik se tradičně deiktické výrazy, jako například ukazovací zájmena či příslovce času, uplatňují deikticky, popř. nakolik jsou dle očekávání psaného textu spíše anaforické. Na základě teoretických poznatků je deixe rozdělena do šesti sémantických kategorií podle dimenze, ve které k referenci dochází. Tyto kategorie tvoří deixe *personální*, *textová (diskurzivní)*, *časová*, *prostorová*, *sociální* a *emocionální*. Výrazy těchto sémantických kategorií jsou pak dále děleny z pohledu vzdálenosti k deiktickému centru na *proximální*, tedy výrazy referující primárně k blízkosti mluvčího, a *distální* ukazující k vzdálenějším referentům. Anaforická reference je pak rozčleněna do čtyř kategorií, a to do anafory *pronominální*, *demonstrativní*, *prostorové* a *temporální*.

Pro samotnou analýzu byla vybrána dvě diskuzní fóra, a to fórum věnované kulturistice a fitness a fórum věnované videohře *World of Warcraft* (WoW). Oba zdroje byly vybrány tak, aby reflektovaly užívání jazyka v rozdílných kontextech s odlišnou skupinou uživatelů. Jediným kritériem pro výběr konkrétních diskuzních vláken pak bylo formulování centrální otázky tak, aby vyzývala ostatní účastníky fóra k poskytnutí určité rady. Žádná další kritéria při výběru nebyla uplatněna a vlákna byla vybrána náhodně. Celkem byla analýze podrobena tři vlákna, z toho dvě na fóru věnovaném kulturistice a jedno delší na fóru věnovaném WoW. Celkově bylo prozkoumáno 100 příspěvků (50 na každém fóru) čítajících dohromady 4701 slov, z toho 2164 na fóru kulturistickém a 2537 na fóru WoW. Průměrná délka jednoho příspěvku tvořila 47 slov (43 na kulturistickém fóru a 50 na fóru WoW).

Celkem bylo zjištěno 534 referenčních výrazů, přičemž 418 (78,3 %) bylo deiktických a 116 (21,7 %) anaforických. Relativní četnost výrazů v přepočtu na sto slov pak byla 11,35 (z toho 8,89 pro deixi a 2,46 pro anaforu). Nejdůležitější ovšem je, že vybraná fóra užívají výrazy rozdílně; oba zdroje sice vykazují výraznou převahu deiktické reference nad referencí anaforickou, značnou převahu lze ovšem pozorovat na fóru kulturistickém, kde je z celkového počtu 277 výrazů 234 (84,5 %) deiktických a pouze 43 (15,5 %) anaforických. Situace na druhém fóru je o něco vyváženější; z 257 výrazů je 184 (71,6 %) deiktických a 73 (28,4 %) anaforických. Ačkoli celkovým zjištěním zůstává, že na obou fórech je patrna znatelná převaha reference deiktické, po zajištění základních kvantitativních dat bylo nutné zodpovědět, které kategorie a výrazy na daných fórech převažují a jaký vliv má povaha konkrétního fóra, zejména pak forma a obsah diskuze, na jejich distribuci.

První důležitý poznatek se týká samotné převahy deiktických výrazů. Bylo zjištěno, že personální deixe tvoří 85,6 % veškerých deiktických výrazů (67 % referenčních výrazů celkem), přičemž výraznou převahu lze pozorovat na obou fórech. Tato převaha je přisuzována zejména analytické povaze angličtiny, kdy při omezení flexe dochází k hromadění osobních zájmen pro identifikaci mluvčího (*I*) a adresáta (*you*). Při důkladnějším přezkoumání bylo navíc shledáno, že je patrný rozdíl mezi užíváním proximálních a distálních tvarů napříč fóry. Zatímco proximální *I* je oproti svému distálnímu protějšku *you* v poněkud výrazné převaze na fóru kulturistickém, převaha je podstatně menší na fóru WoW. Ve spojitosti s tímto jevem lze konstatovat, že forma centrální otázky ve vláknu hraje významnou roli v následné distribuci personální deixe. Vzhledem k tomu, že na kulturistickém fóru otázky přímo vyzývají ostatní účastníky k uvedení svých osobních zkušeností a názorů, účastníci diskuze pak odpovídají právě v první osobě, a nastává tak hromadění proximálně deiktického osobního zájmena *I* (123

výskytů) s jen minimální referencí k adresátovi pomocí distálního *you* (23 výskytů). Na druhé straně fórum věnované videohře WoW uplatňuje personální deixi poněkud rovnoměrně (62 výskytů *I* a 52 výskytů *you*); otázka je zde totiž orientována na popis postav ve videohře, a tudíž dochází spíše k převaze pronominální anaforické reference (viz dále). V souvislosti se směřováním otázky k fiktivním videoherním postavám zůstává zajímavým faktem to, že WoW fórum užívá distální *you* spíše ve svém generickém, a tedy nedeiktickém užití. Zdá se totiž, že mluvčí jím identifikují nikoli pouze konkrétního adresáta, ale také jakéhokoli potenciálního hráče, který ve hře vystupuje pod danou postavou.

Další deiktické kategorie jsou zastoupeny podstatně méně často. Textová deixe zaujímá celkem 30 (7,2 %) případů, časová 16 (3,8 %), prostorová 7 (1,7 %), sociální 5 (1,2 %) a emocionální pouze 2 (0,5 %). S výjimkou deixe textové, která je ovšem v zásadě endoforická, je tento poněkud sporadický výskyt přisuzován již zmíněné absenci sdíleného fyzického kontextu výpovědi, kde zejména prostorová a časová deixe je výrazně omezena. Není totiž zpravidla možné přímo deikticky referovat k mimojazykovým poměrům, pokud není ona fyzická realita sdílená účastníky diskuse. V následující části tedy shrnu ty nejvýznamnější objevy.

Po personální deixi nejpočetnější kategorii tvoří deixe textová (diskurzí). Nejprve je nutno podotknout, že textová deixe je v zásadě endoforická, jelikož operuje uvnitř textu, a neodkazuje tak k mimojazykové realitě. Z tohoto důvodu ji někteří lingvisté považují za anaforu. Zásadním rozdílem mezi diskurzí deixí a anaforou je dle literatury ten, že pokud určitý výraz patrně referuje k nenominálním segmentům textu, je klasifikován jako textově deiktický. V praxi to pak znamená, že zejména demonstrativa, popřípadě diskurzí částice na začátku výpovědi a některé další místně deiktické výrazy referující k organizaci psaného textu, jsou klasifikovány jako textově deiktické. V této analýze bylo zjištěno, že distribuce jednotlivých výrazů je shodná na obou fórech, kdy je přítomno 15 výrazů na každém z nich. Jejich distribuce a užití se pak liší dle typu výrazu. Nejpočetněji zastoupena jsou demonstrativa *this*, *that*, *these* a *those* (19 výskytů). Zde je pozorována převaha demonstrativa *that* v porovnání s demonstrativem *this*, což by mohlo naznačovat trend, že obdobně, jako je tato převaha zaznamenána v jazyce běžné konverzace, se vyskytuje i na internetovém fóru, přestože demonstrativa zde zpravidla nejsou užitá ve svém místně deiktickém významu. Fórum se totiž svým jazykovým územ často blíží právě mluvené komunikaci. Následně je v sedmi výskytech zaznamenáno osobní zájmeno *it*, nesoucí obdobnou funkci, ovšem neutralizovanou z pohledu proximity a distality. Funkce těchto demonstrativ a případně zájmena *it* je prostě odkazující na předešlé segmenty textu tvořené z jedné či více propozic, nebo i celými odstavci. Nalezené diskurzí částice *well* (2

výskyty) pak slouží nejen pro logické propojení diskurzu, ale zdá se, že mají ještě zmírňující význam, kdy zvyšují zdvořilost výpovědi při vyjadřování jistého nesouhlasu. Poslední pozorovaný výraz tvoří místně deiktické *above*, které, obdobně jako již zmíněná demonstrativa, referuje k předešlému textu, ovšem v o něco abstraktnější míře.

Časová deixe je s výjimkou dvou případů vždy proximálního charakteru a mluvčí jí referují k širší aktuální situaci, validní nejen v době psaní příspěvku, a i určitou dobu poté (*currently, now, right now, presently, at this point*). To umožňuje její bezproblémovou interpretaci, jelikož čas výpovědi je účastníky sdílen, alespoň tedy v době největšího rozvoje diskuze, která následuje obvykle několik minut po vytvoření vlákna a trvá několik dní. Distální časová deixe je pak problematičtější, protože obvykle vyžaduje širší znalost kontextu, který ovšem mluvčí mezinárodního fóra zpravidla nesdílejí. V analýze se vyskytují pouze dva případy, a to příslovce *soon* referující k blízké budoucnosti vztažené k času vložení příspěvku a fráze *next xpac*, kdy mluvčí referuje k následující sezóně videohry, která je pravidelně zahájena v ročních intervalech.

Prostorová deixe je s výjimkou jediného užití symbolicky deiktické fráze *out there* vyjádřena kinetiky ve formě sloves pohybu, která jsou navíc použita ve svém značně symbolickém významu. Většinou totiž popisují tranzici jedince z jedné činnosti a místa na další v rámci popisu jisté rutiny za užití distálně deiktického slovesa *go*. Nepopisují tudíž přímo lokomoci osoby ve fyzickém prostoru. Mnohem zajímavěji se však jeví ojedinělé užití proximálního slovesa *come*, které s posunem deiktického centra referuje k pohybu jiných postav vůči hráči ve videoherním světě. Nejen že je tedy *come* užito mluvčím z pohledu adresáta, ale pohyb nerefereje k adresátově fyzické osobě, nýbrž k jeho postavě (avataru), kterou hráč ovládá ve videohře.

Následuje deixe sociální, která je užita zejména na fóru věnovaném kulturistice. V rámci zdvořilostních strategií se uplatňují pouze proximálně deiktické vokativy oslovení, které jsou realizované zpravidla důvěrnými výrazy, jež značí rovnocennost mluvčích a komunitní sounáležitost (*bro, mate, big rigs*). Honorifika se dle očekávání vůbec nevyskytují, jelikož je jejich užití v rámci neformální komunikace na internetovém fóru neadekvátní a mohlo by nabývat značně sarkastického tónu. Celkově se dá nízká četnost sociální deixe přičítat samotnému registru internetového fóra, jelikož příspěvky obvykle neobsahují úvodní a závěrečná oslovení; celkový počet sociálně zbarvených vokativů je tedy řídký.

Poslední zkoumaná kategorie deixe byla deixe emocionální, která značí emocionální blízkost či odstup od určitého referentu pomocí demonstrativ. Celkově se vyskytlo po jednom případě na každém fóru (*that* a *those*). V obou případech se jednalo o distální deixi, zdůrazňující určitý emoční odstup od nepříjemné situace popisované mluvčími.

Nyní bych chtěl krátce shrnout závěry týkající se anaforického užití potenciálně deiktických výrazů. Pronominální anafora, jež třetí osobou referuje k entitám v rámci textu, převažuje na obou fórech; celkově bylo nalezeno 78 (67,2 %) případů s relativní četností 1,66 výrazů na sto slov. Zajímavější než celkové číslo je ovšem nepoměr v distribuci na jednotlivých fórech. 26 (33,3 %) výrazů bylo nalezeno na fóru kulturistickém a 52 (66,6 %) výrazů na fóru WoW. Podobně jako u personální deixe lze důvody hledat ve struktuře samotné diskuze, která je silně ovlivněna centrálním dotazem. Hojně užití pronominální reference na fóru WoW je totiž způsobeno faktem, že účastníci diskuse se zaobírají herními postavami. Je tedy logické, že postava je nejprve představena nominální frází a posléze je na ní při jejím popisu odkazováno osobními zájmeny ve třetí osobě. Toto je patrné obzvláště v jednom příspěvku, který obsahuje dlouhý koreferenční řetězec, kde jsou zájmena *she* a *her* se shodným antecedentem užitá hned 22krát. Na fóru věnovaném kulturistice je pak nejčastějším pronominem *it*, které identifikuje jak konkrétní, tak spíše abstraktní entity. Zůstává ovšem také nejvíce problematickým prostředkem celé analýzy, jelikož není vždy jasné, zda je jeho funkce spíše gramatická, textově deiktická nebo anaforická. V těchto hraničních případech je výraz poznačen v korpusu jako nerozhodný a pro celkovou vyšší reliabilitu analýzy je vyloučen z kvantitativního měření.

Další zkoumanou kategorií anaforické reference tvoří nedeiktické užití ukazovacích zájmen, které jsou buď přímé (pronominální), nebo je jich užití jako determinantů (adnominálně). Celkově bylo registrováno 20 případů anaforických demonstrativ a tvoří 17,2 % všech anaforických referencí s relativní četností 0,43 výrazů v přepočtu na sto slov. Jejich distribuce je shodná pro obě fóra a zahrnuje 10 případů na každém z nich. Nejzajímavější zjištění se ovšem týká samotné distribuce jednotlivých zájmen. Bylo zjištěno, že v demonstrativní funkci je ukazovacího zájmena *that* užití výrazně častěji nežli zájmena *this*. Ve funkci determinantu však byla jejich distribuce vcelku totožná. Jak již bylo zmíněno u textové deixe, v předešlých výzkumech bylo prezentováno, že užití *that* v jeho samostatné demonstrativní funkci je častější v mluveném jazyce, zatímco distribuce *that* a *this* ve funkci determinantů tam zůstává podobná. Výsledky analýzy tedy naznačují, že ačkoli je jazyk fóra psaný, jeho charakteristika se často přibližuje právě jazyku konverzací a zahrnuje mimo jiné i distribuci ukazovacích zájmen.

Posledním typem anaforické reference je pak reference temporální, zahrnující zejména nedeiktické užití příslovce *then* a v jednom případě také frázi *at that point*. Celkově bylo nalezeno 18 případů temporální anafory, která tvoří 15,6 % všech anaforických výrazů, a její relativní četnost je 0,38 výrazů v přepočtu na sto slov. Výzkum ukázal, že ačkoli je výraz *then* často považován za standardně deiktický, jeho užití v psaném jazyce internetového fóra bylo vždy anaforické, popřípadě zcela nereferenční. Typicky bylo *then* užito pro vyjádření časové následnosti, kdy mluvčí popisuje své zážitky, plán či rutinu. V takovém případě *then* referuje těsně za předchozí událost či aktivitu a je tedy čistě anaforické, jelikož jeho časové ukotvení se nachází přímo v textu a nezahrnuje mimojazykové temporální vztahy.

Celkově lze shrnout, že při vyloučení personální deixe zůstává anaforická reference na vybraných fórech častější nežli reference deiktická, a to zejména z důvodu chybějícího fyzického kontextu sdíleného účastníky diskuze. Na rozdíl od deixe, která slouží k uvedení entity do pozornosti účastníků konverzace, je hlavní funkce anafory kohezivní, kdy logicky propojuje text a zároveň redukuje hustotu výpovědi. Zejména patrná je redukce u pronominální anafory, kdy jsou jmenné fráze nahrazeny zájmeny a předchází se tak opakování komplexních struktur. Tato redukce textu snižuje jeho hustotu, což má za následek jednodušší orientaci z pohledu adresáta. Ten se může pak plně soustředit na novou informaci, která dále operuje s již představenou entitou. Z pohledu internetového fóra je tato kohezivní funkce důležitá zejména z toho důvodu, že celková délka příspěvku činí v průměru pouze necelých 50 slov. Vzhledem k tomu, že příspěvky bývají informativní a komunikují konkrétní informaci (nejčastěji jistou radu) vůči adresátovi, je hromadění komplexních nominálních struktur nežádoucí jak z pohledu délky, tak právě přehlednosti sdělované informace. Z toho důvodu se také často uplatňuje textová deixe, kdy ukazovací zájmena často referují k větám, myšlenkám, nebo dokonce celým příspěvkům. Dochází tak k jednoduché, efektivní a ekonomické metodě organizace výpovědi v limitovaném prostoru.

Vzhledem k tomu, že v této práci nebyl prostor na sémantickou analýzu času z pohledu deixe, jedná se o jeden z možných předmětů pro následný výzkum. Dále se zajímavě jeví i prozkoumání demonstrativ pro potvrzení, či případné vyvrácení hypotézy, že, stejně jako v běžné konverzaci, zájmeno *that* převažuje nad *this* i v registru internetového fóra, přestože jeho místně deiktické užití je značně omezené.

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Appendix 1. Corpus Analysis

List of abbreviations:

Forum layout:

TS – topic starter (person asking the central thread question)

R - response

Deixis: (see Chapter 1)

per – person deixis **inc** – inclusive plural; **exc** – exclusive plural

temp – temporal deixis

spat – spatial deixis

disc – discourse deixis

soc – social deixis

emo – emotional deixis

prox – proximal deixis

dis – distal deixis

Anaphora: (see Chapter 2)

pro – pronominal anaphora

dem – demonstrative anaphora

temp – temporal anaphora

Non-referential uses:

(see Chapter 3)

nd – non-deictic use

gen – generic *you*

comp – complementizer *that*

rel – relativizer *that*

(relative anaphora is not included in the analysis)

anti – anticipatory *it*

emp – empty *it*

exist – existential *there*

fp – fixed phrase

res – *then* introducing a result

add – *then* introducing an addition

ord – *then* introducing the next item in order

ir – indeterminate reference

anaco – anacoluthon

se – spelling error

Bodybuilding forum

Thread Question: Morning workouts – tired for the day? (1)

<https://forum.bodybuilding.com/showthread.php?t=177983351>

1/TS:

As my^(per, prox) job schedule is going to change soon^(temp, dis) the only time for me^(per, prox) to train will be in the morning. But I^(per, prox) know from my^(per, prox) previous experience of training in the morning that^(comp) I^(per, prox) feel sluggish and relaxed too much after a morning workout and cannot concentrate mentally as good in my^(per, prox) job later. What can I^(per, prox) do? Did someone experience something similar?

1/R1:

I^(per, prox) wake up at 4. every morning then^(temp) hit the gym and have a feed straight after then^(temp) go^(spat, dis) to work never really feel slugging from it^(disc) aslong as I^(per, prox) eat straight after workout.

1/R2:

As highlighted above^(disc) diet and eating schedule will play a massive part. What do you^(per, dis) eat in the morning? Also are you^{(per, dis)/(gen)} bulking, maintaining or cutting will effect your^{(per, dis)/(gen)} energy levels. I^(per, prox) would say nutrition will have a bigger role then^(se) your^{(per, dis)/(gen)} workout itself^(pro).

1/R3 TS (replying to R2):

Well^(disc) nutrition is not an issue for me^(per, prox), I^(per, prox) believe. In the morning I^(per, prox) usually eat some carbs like grain, rice, etc. (if I^(per, prox) workout in the morning, otherwise I^(per, prox) add a protein source.) And no, I^(per, prox) am not cutting. Maintaining my^(per, prox) weight mostly. Also, after a workout I^(per, prox) strive to eat as soon as^(fp) possible.

1/R4:

Some ppl physically and even mentally are just not morning ppl - and other twisted ppl voluntarily set their^(pro) alarms at 5am on weekends to get up bright and early and get a head start on the day.

I^(per, prox) 've tried the before-work workout a few times in my^(per, prox) life and it's^(pro) been an epic fail - I^(per, prox) rather work out at midnight if I^(per, prox) had to. I^(per, prox) work out in the morning on weekends sometimes but I^(per, prox) not rushing to get to the gym and it^(emp) usually ends up being closer to noon than sunrise.

But if that's^(dem) the only time you^(per, dis) be able to workout, then^(res) you^(per, dis) have to do it^{(pro)/(ir)}. Your^(per, dis) body and mind will adjust over time, but might take a while if you're^(per, dis) not normally energetic when you^(per, dis) wake up.

1/R5:

You^(per, dis) have to adapt. I^(per, prox) have been training or running at 5:00am for the past 10 years^(temp, prox), and I^(per, prox) fasted as well. No pre-workout crap, just water and off the races.

1/R6:

You^(per, dis) get used to it^(ir)

I^(per, prox) find that^(comp) having a pre workout that's^(rel) heavy on the caffeine and then^(temp) hitting an early morning workout can ruin the rest of my^(per, prox) day unless I^(per, prox) get a nap.

You^(per, dis) find something that^(rel) works for you^(per, dis). For me^(per, prox), making sure I^(per, prox) don't get more than 200mg of caffeine in that morning session^(dem) helps the rest of my^(per, prox) day.

1/R7 TS (replying to R6):

wow, caffeine may be the reason. Do you^(per, dis) think that^(disc) may be related due to caffeine induced cortisol release?

1/R8 (replying to R7):

I^(per, prox) not really sure about the mechanism behind^(nd) it^(ir)

I^(per, prox) can handle up to about 200mg first thing in the morning and then^(temp) go^(spat, dis) train and feel fine but Everytime I^(per, prox) taken a 300mg pre first thing in the morning the rest of my^(per, prox) day is completely demolished unless I^(per, prox) get a 20 minute nap. This^(disc) is purely anecdotal without any evidence behind^(nd) it^(disc) other than how I^(per, prox) felt a few dozen times.

Alternatively... I'm^(per, prox) okay taking that 300mg^(dem) pre mid day for a lunch time workout and The rest of my^(per, prox) day is fine... I^(per, prox) don't usually have trouble sleeping so it works^(fp/ir) for me.^(per, prox)

1/R9 TS (replying to R8):

I^(per, prox) assume you^(per, dis) mean you^(per, dis) get sluggish?

1/R10 (replying to R9):

Haha yeah precisely... Like extremely sluggish. It'll^(ir) start before my^(per, prox) workout is even done. I'll^(per, prox) like start yawning and then^(temp) feel like I^(per, prox) need to sleep.

1/R11 TS (replying to R10):

It^(ir) could well be related. I^(per, prox) am super sensitive to caffeine and if I^(per, prox) take too much of it^(pro), I^(per, prox) get bad side effects. It^(anti) seems logical to me^(per, prox) (not a specialist tho) that^(comp) excessive caffeine (which itself^(pro) raises cortisol/adrenaline) combined with lifting may release too much of those hormones^(dem) so body reacts in a weird way. Plus, it^(anti) is known that^(comp) cortisol is higher after the night sleep... So it^(ir) kinda clicks.

Seems it^(disc) can be something to try. Thanks man^(soc, prox).

1/R12:

I've^(per, prox) been getting up early since Junior High.....so I^(per, prox) have no problems with working out at 4:30am.

I^(per, prox) feel refreshed and ready to get my^(per, prox) day going.^(nd, fp)

I^(per, prox) workout fasted and eat a pretty big morning meal, plus many more meals throughout the day....

I^(per, prox) go to bed^(nd) around 8:30/9pm every night except Friday's and Saturday's, I'm^(per, prox) up till midnight at the latest and still wake up at 6am ...no alarm needed.

1/R13:

In my^(per, prox) 20s, I^(per, prox) tried the early morning routine and it^(pro) was awful.

I'm^(per, prox) in my^(per, prox) mid 30s and switched to morning (5-5:30 wake-up) years ago. Had a tough two weeks, but got over it^(fp) and I^(per, prox) could never go back^(nd, fp). That morning

workout^(dem) now^(temp, prox) gives me^(per, prox) energy for the day and I'm^(per, prox) more tired on days I^(per, prox) don't get the workout in.

I^(per, prox) also used to eat before working out, but now^(temp, prox) I^(per, prox) workout fasted and prefer it^(disc). Only thing I^(per, prox) have is some caffeine.

As for the caffeine, try matcha before working out. Green tea on steroids. I^(per, prox) find it's^(pro) a smooth, mellow energy (if that^(dem) makes any sense) compared to the jitters and ups & downs created by coffee. And it's^(pro) very fast to prep. Just add hot water (or room temp if in time crunch) stir, and drink.

1/R14:

Drink Coffee 😊

1/R15:

Sounds like playing with caffeine quantities and timing will benefit you.^(per, dis)

I^(per, prox) take a PWO with eggs and oats as soon as^(nd fp) my^(per, prox) alarm goes off.^(nd fp) 15-20 minutes later, I'm^(per, prox) in my^(per, prox) garage lifting. Takes some getting used to, lol. The alarm goes off^(nd fp) at 4am weekdays.

I^(per, prox) eat immediately after the workout, and usually get some more caffeine at that point^(temp) as well.

Around 8-9am +/- 1hr, I^(per, prox) usually hit a wall, and start nodding off at my^(per, prox) desk. I^(per, prox) need carbs and some more caffeine, then^(temp) good for the day.

I^(per, prox) don't really like green tea, but it^(pro) does the job.

1/R16 TS (replying to R14):

Well^(disc) I^(per, prox) already take too much of it^(pro) lol

1/R17:

Right, I^(per, prox) have the same problem. I^(per, prox) eat right 90% of the time and after morning workouts, I^(per, prox) get really sluggish after 2 hours and can't really concentrate...

Caffeine doesn't help, I^(per, prox) can take any amount and it^(pro) won't have any effect on me^(per, prox).

Any other options than moving my^(per, prox) workouts to the evening? (Monthly gym membership for evenings is more expensive 😞)

1/R18:

I^(per, prox) feel sluggish and relaxed. And can focus better on work. Mind not jumping all over the place.

Excited enough to continue workout but tired enough not to go^(spat, dis) anywhere.

Need to fix my^(per, prox) breakfast though. Perhaps get some porridge oats to the office to make a nice porridge on arrival.

1/R19:

How about splitting it^(ir) into more smaller workouts, do you^(per, dis) have any wriggle-room in your^(per, dis) schedule to do that^(dem) or do you^(per, dis) already lift every working day?

1/R20 (replying to R10):

You^(per, dis) just need to keep drinking more coffee lol!

I^(per, prox) have cold brew at home to get out the door, pour a cut first thing upon entering the gym and carry it^(pro) around with me^(per, prox) sipping between sets. Second cup after my^(per, prox) main lifts. That^(disc)'s usually enough to last for a few hours til my^(per, prox) afternoon coffee.

Not a morning person either, I^(per, prox) think my^(per, prox) circadian rhythm is 26 hours. But I^(per, prox) like working out in the AM cuz I^(per, prox) often get mentally burned out at the office. But my^(per, prox) "morning" workout is like 9 am. Usually no fatigue through the day.

1/R21:

I^(per, prox) wake up at 3 am for the gym and something I^(per, prox) found for long term energy throughout the day is Ginseng. I^(per, prox) use it^(pro) in the morning and again at lunch. I^(per, prox) don't get the rush at caffeine nor the comedown either. I^(per, prox) am also a morning person so that^(disc) helps, but the Ginseng has defiantly got me^(per, prox) through those rough days^(emo, dis).

Thread question: What is your weekly cost on food? (2)

<https://forum.bodybuilding.com/showthread.php?t=177954751>

2/TS:

I^(per, prox) spend around \$120 a week

I^(per, prox)'m 5'7 75ish kg

Curious what everybody spends on food specially you^(per, dis) big rigs^(soc, prox)

2/R1:

I^(per, prox) not a 'big rig', but I^(per, prox) spend a lot of food... im^(per, prox) very picky when it^(fp) comes to^(nd, fp) having things I^(per, prox) enjoy... especially when I^(per, prox) get fish/seafood...

I^(per, prox) compromise only on certain things, and never on others.

I^(per, prox) probably spend about \$100 per week on typical food items, and sometimes I^(per, prox) eat out.

2/R2:

Depending if cut/bulk cycle, but It^(ir) averages 15-20/day now^(temp, prox) on bulk, so likely up to \$140 a week, which in LA that^{(dem)/(disc)}'s cheap LOL

2/R3:

\$25-35 I^(per, prox) guess. I^(per, prox) mostly cook everything

2/R4 (replying to R3):

??? 25-35 do you^(per, dis) live off noodles? I^(per, prox) cook everything also what do you^(per, dis) eat?

2/R5:

£30 a week. 4500kcal a day on Chicken, Nuts, Milk, Fruit and Veg.

I^(per, dis) have stopped buying fresh fruit and replaced it^(pro) with frozen fruit. Much much cheaper that way^(nd, fp).

2/R6 (replying to R4):

Your^(per, dis) prices is in AUD which will be higher than general. I^(per, prox) get 5 pounds of chicken for \$10, 5 pound of rice for \$5, plus beans and vegetables, like \$2-3. That's^(disc) less than \$20 but I^(per, prox) usually get some snacks or juices.

2/R7 (replying to R5):

Same here,^(nd, fp) I^(per, prox) was spending £2 a day on fresh strawberries, now^(temp, prox) I^(per, prox) buy frozen blackberries and raspberries instead. I^(per, prox) still buy fresh bananas which are dirt cheap.

My^(per, prox) most expensive items are protein bars at £1 or so a pop and I^(per, prox) have one every night. But I^(per, prox) like chocolate bars and feel that^(comp) protein bars are slightly better than munching on a twix or a snickers.

2/R8:

Currently^(temp, prox) bulking hard so...about \$200 per week IF I^(per, prox) don't eat out.

2/R9:

My^(per, prox) wife spends about 100GBP (=130USD) each week in Aldi. This^{(dem)/(disc)} is for 3 of us.^(per, prox, exc)

I^(per, prox) would guess my^(per, prox) allocation comes to^(nd, fp) around \$50

I^(per, prox) make sandwiches for lunch. She^(pro) home cooks almost every night.

2/R10 (replying to R8):

Wow thought mine^(per, prox) was high bro^(soc, prox)

2/R11:

\$100 on groceries for a week. I^(per, prox) try to avoid eating out too much to save money, but \$100 on groceries is my^(per, prox) cap.

2/R12 (replying to R10):

It's^{(pro)/(disc)} the grass fed organic meat lol. I^(per, prox) eat a lot of it^(pro) and it's^(pro) not cheap. Worth it^(fp) for me^(per, prox) though

2/R13:

A lot hard to say exactly as I^(per, prox) buy food for my^(per, prox) kids as well but 150\$+ weekly grocery trip and I^(per, prox) buy my^(per, prox) lunch every workday and frequently buy my^(per, prox) kids dinner on the way home after picking them^(pro) up from after school care with them^(pro) included easy 200-300\$ a week. I^(per, prox) don't really bargain hunt though if the cuts of chicken that^(rel) cost 3x as much look better I^(per, prox) buy them^(pro) I^(per, prox) also like things like shrimp cocktails and the more expensive ones with the big shrimp taste way better. If I^(per, prox) like the name brand stuff more than store brand for anything I^(per, prox) get it^(pro) As a single dad working 50 hours a week trying to get to the gym on top of that^(disc) my^(per, prox) time is worth a lot more to me^(per, prox) than my^(per, prox) money and I^(per, prox) not hurting for money anyway.

2/R14:

Average ~80USD. If I^(per, prox) eat out it^(ir) can be hell of a lot more. Most food is bought in bulk too.

+1 on the frozen fruits

2/R15 (replying to R12):

That^(disc) all that^(rel) matter 😊

2/R16:

Around \$45/week for me^(per, prox)

2/R17:

I^(per, prox) would say around \$300/week...I^(per, prox) like sushi and filet mignon. I^(per, prox) have at least one or sometimes both everyday.

2/R18:

\$200 a week-ish, currently^(temp, prox) on a bulk. Thats^{(dem)/(disc)} including a couple nights out per week.

2/R19:

I^(per, prox) always try to spend no more than \$100. Currently^(temp, prox) on a bulk. When I^(per, prox) was cutting it^(ir) was maybe ~\$80

2/R20:

Buying most in bulk and looking for the best deals, i'd^(per, prox) say somewhere around \$150 or so for the month. I^(per, prox) try to keep it^(ir) low if I^(per, prox) can.

2/R21:

I'm^(per, prox) a pretty big budget shopper and keep my^(per, prox) budget around \$100 or so. I^(per, prox) do the majority of my^(per, prox) shopping at Trader Joe's with a monthly Costco run. I'll^(per, prox) pick up stuff as needed at Whole Foods/New Seasons/Target also.

2/R22:

About 75 a week. I^(per, prox) try to average 200-300 a month on food.

2/R23:

Prob \$150 a week and \$300 a month on supps.

2/R24:

On a cut (currently)^(temp, prox) \$100. It's^(ir) under 2,000 cal a day so... Lean bulk I^(per, prox) would say add a 50% increase. I^(per, prox) get the chicken and eggs from Sam's Club which saves.

2/R25 (replying to R23):

I^(per, prox) an understand \$150 a week for food but \$300 a month on sups? How many sups do you^(per, dis) take jesus mate^(soc, prox)

You^(per, dis) including protein snacks or just sups

2/R26:

Um too much -_-

For just me^(per, prox) it's^(ir) like 210 up to 300 if you^{(per, dis)/(gen)} include coffee and energy drinks, going out to eat too

Hobbies about 140

We^(per, prox, exc) have his^(pro) kids half the time and they^(pro) are about 100ish

So five people 450 (and no he^(pro) doesn't pay for how often I^(per, prox) go^(spat, dis) out to eat/order in at lunch, coffee, juice bar and energy drinks), as a couple or with the kids it's^(ir) at least 1 time a week more often 2 for diner

2/R27:

\$60 to \$75 a week on whole food depending on what protein I^(per, prox) get and then^(add) around \$30 week on supplements. That's^(disc) on a 3200 calorie cut though.

World of Warcraft Forum

Thread Question: Solo class for a casual (3)

<https://us.forums.blizzard.com/en/wow/t/solo-class-choice-for-a-casual/3764>

3/TS:

Sup everyone, in your^(per, dis) opinion, what is the best solo class for a casual player? I'm^(per, prox) not looking for guild raiding or pushing the harder end game content. I^(per, prox) had my^(per, prox) years of doing that^{(emo, dis)/(disc)} I'm^(per, prox) done with it^(fp).

I'm^(per, prox) playing solo now^(temp, prox) for the quests, world quests, rep grinds, farming, etc. As far as raiding goes, ^(nd, fp) ill^(per, prox) do LFR but that's about it^(fp).

In my^(per, prox) mind, hunter screams out as the best solo class since with a tank pet, they^(pro) could probably solo just about anything, but I^(per, prox) could be wrong.

Not looking for "top of the meters" or anything, but I^(per, prox) want a main to where if I^(per, prox) want to do something, I^(per, prox) don't have to look for help constantly. =P

3/R1:

/waves

Druids. We^(per, prox, exc) do everything, and pretty well.

3/R2:

I^(per, prox) can't comment on how well druids work personally, but I^(per, prox) can say I've^(per, prox) heard they^(pro) do quite well. My^(per, prox) vote is for deathknight. At this point^(temp, prox) they^(pro) can handle anything you^(per, dis) need them^(pro) for.

3/R3 (replying to R1):

This^(disc) Druid.

3/R4:

Hunter, Warlock (Affliction particularly), any class that^(rel) has a tank spec.

3/R5:

I^(per, prox) would go with^(nd, fp) hunter. Druid is an ok choice if you^{(per, dis)/(gen)} know how to play. You^{(per, dis)/(gen)} just moonfire everything and wait until everything comes^(spat, prox) to you^{(per, dis)/(gen)} if you're^{(per, dis)/(gen)} geared and know what you're^{(per, dis)/(gen)} doing.

3/R6:

<--Hi.

Also, Ret Pally and WW Monk.

If you^(per, dis) want something of the cloth persuasion, go^(nd) Fire Mage. Warlock is the more commonly mentioned solo, but I^(per, prox) find them^(pro) slow. Warlock is only better for rares.

3/R7:

My^(per, prox) fave solo is Balance Druid, then^(ord) Beast Master Hunter. Druid first only because of the self healing is much better than Hunter's.

3/R8:

What? A DK could solo a druid under the table. Druid (while a solid second choice by having access to stealth) pales in comparison to what a DK can solo.

My^(per, prox) vote for pure solo play:

DK

Druid

Aff lock

3/R9:

WW Monk. Beat monsters to a pulp with your^{(per, dis)/(gen)} bare hands (can transmog fist weapons to be invisible), great mobility, plenty of active/passive healing, convenient access to vendors/repair and the capital cities by way of teleporting to the monastery from anywhere.

3/R10:

Level all of the classes and figure out for yourself.^(per, dis)

3/R11:

Affliction warlocks are the masters of solo play. Self healing baked into the DPS rotation, tank pet, able to conjure healing items, heal their.^(pro) tank pet, and pre-emptively battle res themselves.^(pro)

3/R12:

Unholy DK. :)

3/R13:

veng dh and blood dk are the solo GODS of WoW

3/R14:

All around, relaxing dps class is Hunter. Also you.^{(per, dis)/(gen)} can have a virtual pet buddy with you.^{(per, dis)/(gen)} All around, jack of all trades class is Druid. Facerolling melee class is Frost DK.

3/R15:

The game has been so watered down that.^(comp) I.^(per, prox) imagine any class can solo content fairly easily, barring healers because they.^(pro) have crap damage.

3/R16:

Mages are a good easy class for soloing. You.^{(per, dis)/(gen)} can do lots of damage quickly and the bad guys will be hard pressed to damage you. :)^{(per, dis)/(gen)}

3/R17 (replying to R15):

Quoted for truth.

3/R18:

Any class that.^(rel) has DPS/tank spec with reasonable self heal would do the job nicely.

3/R19:

A class in a game not called World of Warcraft.

Semper Fi!

3/R20:

I.^(per, prox) have solo'd this character.^{(dem)/(spat, prox)} from 20 to 108 with no hiccups....^(antecedent in layout)

3/R21:

It all depend on^{(fp)/(ir)} what you^(per, dis) want to do soloing.

Most cases your^(per, dis) hunter or a warlock should be fine with you^(per, dis) pets to help your^{(se)(per, dis)} out.

If you^(per, dis) want something with faster que for lfr or lfd then^(res) a druid or a pally would be better. The healer que are always fast and your^(per, dis) not in the tanking roll which alot of people useally don't like to do.

Class like the DK, DH ,or a pally are good for soloing big bad in the field.

DH in general are good to solo with with high burst damage and great moblity. I^(per, prox) personally don't like there^{(pro)(se)} dps spec but the tank spec is really fun but to each his own.^(fp)

In time and gear any class is good to solo but I^(per, prox) think these^{(disc)/(dem)} I^(per, prox) pointed out are better from the get go.^(nd, fp)

3/R22:

Personally, I^(per, prox) recommend trying a Mage. I^(per, prox) found as my^(per, prox) time playing a Mage that^(comp) it^(anti) was a lot easier to learn this class^(dem) than other specs I^(per, prox) have tried. Not only are Mages easy to level up once you^{(per, dis)/(gen)} learn the class, But you^{(per, dis)/(gen)} can also make food for your^{(per, dis)/(gen)} allies to eat in Dungeons, PvP (Like Battlegrounds), Raids, and Scenarios.

Best thing is that^{(comp)(anacol)} I^(per, prox) like about my^(per, prox) class - Is the ability to port to many, many, cities around Azeroth. And you^{(per, dis)/(gen)} can make good gold by selling ports.

Last thing I^(per, dis) like is the Water Elemental you^(per, dis) can have if you^(per, dis) choose to play Frost.

In the end though, Feel free to play any class you^(per, dis) are comfortable with. It's^(anti) up to you^(per, dis) to decide which class you^(per, dis) want to play. Just take the time to learn each class, And you'll^(per, dis) be confident in which class you^(per, dis) decide to play as. :-)

Xanlorash [The Insane]

3/R23:

Demon hunter is really good for soloing open world content.

3/R24:

Druid, we^(per, prox, exc) do it^{(disc)/(ir)} all, and look good doing it.^{(disc)/(ir)}

3/R25:

Aff lock, in mythic plus I^(per, prox) rarely worry about them^(pro) because they^(pro) have so much self healing.

3/R26:

I^(per, prox) rarely have problems when I^(per, prox) play. I^(per, prox) find the ability to throw a heal when needed to be a nice plus. I^(per, prox) am not the best player, but I^(per, prox) have been able to hold my^(per, prox) own with my^(per, prox) bad gear.

To be honest I^(per, prox) have been playing less and less due to me^(per, prox) just being tired of playing alone.

3/R27:

Blood DK.. you^{(per, dis)/(gen)} roll your^{(per, dis)/(gen)} face across the keyboard and win. You^{(per, dis)/(gen)} may fall asleep though since there^(exist) is no challenge (unless you're^(per, dis) me^(per, prox) and you^(per, dis) still fall off things and go splat).^(nd)

Affliction Lock, Vengeance DH and Disc Priest are also all good. Same with BM hunters. I^(per, prox) would avoid shaman though...

3/R28:

You^(per, dis) are right. The standard group is a tank, a dps, and a healer who heals the tank. A ranged hunter (like MM) has that^(disc) when SOLOING:

- hunter has a heal-pet spell (distance heal)
- pet can tank and has abilities to hold aggro
- hunter is a good ranged dps class

I^(per, prox) wear mail, but I^(per, prox) could wear cloth. I^(per, prox) never get hit. And I^(per, prox) have a couple special abilities:

- feign death: losing a fight against 8. pretend to die. the 8 walk away
- stealth! lasts 1 minute, then^(temp) 1 minute cooldown

I^(per, prox) have solo-leveled every DPS class. The "whole group" of hunter soloing is simply much easier. This^(dem) is the character I^(per, prox) use for Argus, for farming, and for anything that^(rel) is difficult.

3/R29:

You're^(per, dis) playing it^(ir) my^(per, prox) friend!^(soc, prox)

Also, as others have stated; Blood DK, Warlock. Possibly even a Prot Paladin?

Tanky stuff with heals essentially, or whatever you^(per, dis) like looking at.

3/R30:

Unless flat out bored of hunter, then^(res) you^(per, dis) are already playing the right class. Other classes may have advantages in specific areas, but we^(per, prox, exc) are very close to jack-of-all (minus the obvious lack of heal or tank spec) - but as a casual player myself^(per, prox), DPS is likely what you^(per, dis) do anyway.

Paladin would be my^(per, prox) second choice if you^(per, dis) need a variety of roles (apparently monk too, but I^(per, prox) don't have one high enough to compare).

3/R31:

I^(per, prox) play solo, too, and I^(per, prox) think pet classes are the best for our^(per, prox, inc) kind of play. Being able to pull out your^{(per, dis)/(gen)} little tank companion is awesome. Sometimes there's^(exist) not a tank in the invasion wqs anymore, and it's^(anti) been really easy to ctrl+3 the infernal around the room so the melee can hit the boss. I^(per, prox) also really enjoy the, "dot em^(fp) and forget em^(fp)" aff playstyle while questing - some people get more satisfaction from direct damage classes, tho; and it^(emp) looks like our^(per, prox, exc) self healing is getting pruned in BfA to an extent, so not sure if that^(disc) will change the way aff quests next xpac^(temp, dis) or not.

I^(per, prox) would probably roll a hunter if I^(per, prox) had to choose again, tho, as you^{(per, dis)/(gen)} can go^(spat, dis) tame the appearance of the pet you^{(per, dis)/(gen)} would like. The infernal is about 6 times my^(per, prox) character's size and stands on top of her^(pro), and when you^{(per, dis)/(gen)} q into group content, the doomguard's wings cover your^{(per, dis)/(gen)} character - both get annoying.

Another con is that^(comp) you're^(per, dis) forced into a pure dps class, so if you^(per, dis) want to ever tank or heal, you^(per, dis) will need to roll another character.

3/R32:

Druid is the all around best class for playing solo with ease. Monk, however, in humble opinion, is the most fun class whether playing solo or in a group.

3/R33:

Answer: DK, any way, is the only way.

3/R34:

Demon Hunter.

Vengeance DH for tough elites or newer "old raids" then^(temp) swap to havoc for super fast movement.

3/R35:

Paladin

Druids

Shamans

Monks

Hunters

All those^{(disc)/(dem)} are good for solo.

3/R36 (replying to R16):

Eww, don't take this^(disc) advice. Anything worth saying that^(comp) you^(per, dis) "soloed" will laugh at your^(per, dis) snares/roots and take your^(per, dis) shield off in half a hit. Mages have to wait an extra expansion to farm their^(pro) mythic tier.

3/R37:

In my^(per, prox) experience - hunters and druids do pretty well. I^(per, prox) doing solo content on a druid right now^(temp, prox).

3/R38 (replying to R16):

You^(per, dis)re either lying or fooling yourself^(pro) idk which one's worse.

3/R39:

Druids are good.

I^(per, prox) prefer my^(per, prox) Ret Pally for soloing though. She^(pro) can self heal, has powerful abilities, can handle mobs.

This^(disc) is only for questing. I^(per, prox) don't do dungeons/raids or PvP.

3/R40:

Blood do questing, if you^(per, dis) don't wanna tank lfr frost.

3/R41:

BM Hunter = #1

Affliction Warlock = #2

Protection Paladin = #3

Blood DK / Tank Druid = #4 (tie)

This^(disc) is how I^(per, prox) rate the "easy" classes as far as questing goes. ^(nd, fp) This^(disc) is just an opinion. I^(per, prox) sue there^(exist) are a few people with different play styles that^(rel) might disagree.

3/R42:

1) Hunter, with tank pet and BM like myself^(per, prox)

2) Blood DK, which is my^(per, prox) alt.

Both mainly solo.

The Blood DK gnome is a MONSTER!!! She^(pro) might take a little longer to kill things, but She^(pro) also pretty much never is in danger of dying. She^(pro) is also pretty simple to play, mainly having the main spells to use which it^(ir) shows on the "Blood DK" selection part of the talents. So like the hunter, you^{(per, dis)/(gen)} are mainly pushing a few buttons.

The fun thing about the Blood DK is that^(comp) no pet is needed; You^{(per, dis)/(gen)} are just an unholy monster out there^(spat, dis), on your^{(per, dis)/(gen)} own.

I^(per, dis) boosted her^(pro) on Jan 30, with the boost to 110 (from 90.) With the gear they^(per, dis) gave her^(pro), as well as all the unsullied plate tokens this character^(dem) had, She^(pro) started on Arguss. She^(pro) basically tore Arguss a new one, soloing. Then^(temp) She^(pro) got a BIS shoulder legendary, after about a week, from an emissary. Then^(temp) She^(pro) got a BIS chest legendary, about a week later or so, from a chest on Arguss. Then^(temp) She^(pro) REALLY tore stuff up. Then^(temp) She^(pro) kept getting pieces of gear from greater invasions, WHAT A JERK.

She^(pro) also qualified to get Uuna, sometime after this character^(dem) then^(temp) EVEN THOUGH I^(per, prox) TRIED EVERYDAY She^(pro) GOT UUNA! SO She^(pro) got uuna first, then^(temp) went through the uuna stuff to finish her^(pro). This character^(dem) also had Uuna complete then^(temp), so one character can complete it^(pro).

She^(pro) seems really to be my^(per, prox) bipolar opposite, as far as RNG is concerned. She^(pro) then^(temp) bought a third Legendary with 1000 essences, then^(temp) She^(pro) got ANOTHER ONE from an emissary or something. She^(pro) has yet to get the wrist though, so She^(pro) is still using

the chest/shoulders (a shame, since She^(pro) has a 935 chest from a greater invasion if She^(pro) ever gets the wrist to use as a second legendary.)

3/R43:

Affliction Warlock with Demon Skin talented.

Thank me^(per, prox) later.

(I^(per, prox) have a Troll and Dwarf Warlock at 110).

3/R44:

For solo, hunter, and lock, because they^(pro) can have a tank pet.

3/R45:

If all you're^(per, dist) doing is soloing, I^(per, prox) would pick a BM Hunter every time. Add Mining and Skinning to make money, and you're^(per, dis) set.

Having said that^(disc), I^(per, prox) didn't really experience any problems with my^(per, prox) Arcmage. They^(pro) chew through mobs something ferocious.

3/R46 (replying to R36):

I^(per, prox) levelled as an Arcmage, and frankly mobs MELT in the face of what that class^(dem) can do. Things die so fast that^(comp) you^{(per, prox)/(gen)} rarely take much damage at all.

I^(per, prox) tried to level a few classes, and found none that^(rel) rip through mobs so quickly. I^(per, prox) seen the various tank classes gathering up mobs and spending what seems like forever burning through them^(pro). Meanwhile, I^(per, prox) one or two-shotted everything in sight, and am mounting up and heading back to base.

Even elite mobs don't seem to be much of a problem (at least prior to Argus).

3/R47:

Seems quite a few people are beating around the bush on this one^(disc)

Currently^(temp, prox) the best choice for "advanced solo play" is a tank class of some variety.

Blood DKs and Vengeance DH tend to be prominent choices due to them^(pro) being tanks with a strong focus on self-healing, which allows them^(pro) to solo almost anything that^(rel) doesn't have an enrage timer to deal with (and sometimes, even those^(dem) as well).

Guardian Druids, Prot Paladins, and Brewmaster Monks also do very well. Usually not quite as good as DKs and DHs, but still very good in most cases.

Prot Warriors? Well, let's^(per, prox, inc) just say warriors have notoriously been weak at soloing since Vanilla WoW... until they^(pro) get the right gear, or at least very strong gear. Presently,^(temp, prox) that's^(dem) the legendary healing bracers and maybe Prydaz. They^(pro) *can* solo well, just not to the extent of other tanks in most cases. On a small note, Arms Warriors with all their^(pro) artifact traits and the legendary healing bracers are surprisingly good at soloing; they^(pro) pump out LOADS of self-healing (constantly spending rage, unlike the other two specs), though are usually more fragile and can run into trouble against rare elites on Argus if they^(pro) aren't careful.

Beyond that^(disc) ... all classes can actually solo relatively well.

Part of it^(fp) has to do with the *EXTREME* stat-inflation in WoW, but most classes have either the tools to assist in their^(pro) survival when soloing... or at least enough raw power to make most enemies implode before they^(pro) kill you^{(per, dis)/(gen)}. Pet classes (Hunters and Warlocks), tend to have a small edge... but the crown still tends to go^(nd) to tank classes, unless it's a matter of^(fp) raw throughput killing the boss before anything else coming into play (with the pet distracting/surviving long enough to enable that^(dem)).

3/R48:

I^(per, prox) like Blood DK because you^{(per, dis)/(gen)} can just grab a ton of mobs at once and clear a section at a time..

It^{(disc)/(ir)} does get a bit boring at times.. I've^(per, prox) died from falling asleep of boredom in the middle of fights a few times..

DH are nice also because they^(pro) can heal really well and are really mobile..A lot less boring than DK blood..

I^(per, prox) like druid also, but I'm^(per, prox) just not really good at my^(per, prox) druid yet to really say.. they^(pro) are fun though for sure..

3/R49:

Beastmaster hunter, you^{(per, dis)/(gen)} and your^{(per, dis)/(gen)} pet shall adventure merrily. Or a warlock if you'd^(per, dis) like to be a caster.

Appendix 2. Quantitative Data

Forum	Words in total	Post length in words
Bodybuilding	2164	$\bar{x} = 43$ ($r = 2-146$; $\tilde{x} = 30$)
WoW	2537	$\bar{x} = 50$ ($r = 2-319$; $\tilde{x} = 26$)
Total	4701	$\bar{x} = 47$ ($r = 2-319$; $\tilde{x} = 26$)

Table 1. Forum details

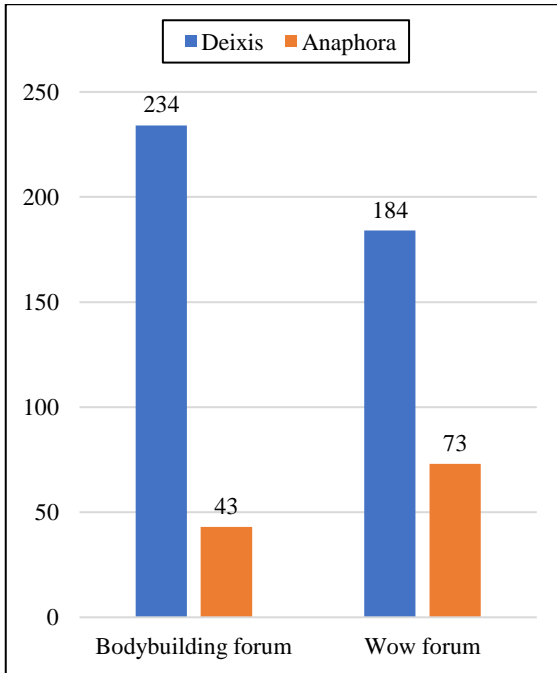


Figure 1. Reference distribution

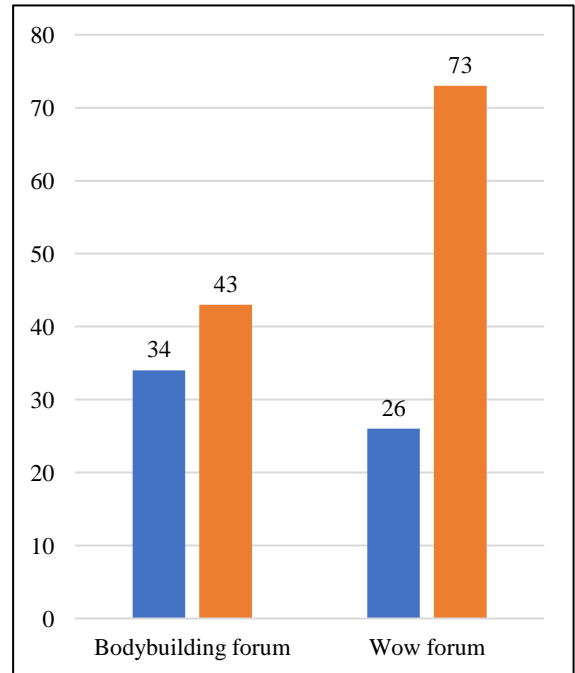


Figure 2. Reference distribution excluding person deixis

Reference	Number	Percentage	Frequency (x/100 words)
Deixis	418	78.3%	~8.89
Anaphora	116	21.7%	~2.46
TOTAL	534	100%	~11.35

Table 2. Reference in total

Reference	Number	Percentage	Frequency (x/100 words)
Deixis	234	84.5%	~10.82
Anaphora	43	15.5%	~2.03
TOTAL	277	100%	~12.85

Table 3. Reference on Bodybuilding forum

Reference	Number	Percentage	Frequency (x/100 words)
Deixis	184	71.6%	~7.26
Anaphora	73	28.4%	~2.87
TOTAL	257	100%	~10.13

Table 4. Reference on WoW forum

Category	Num.	Per.	Frequency (x/100 words)	Distance (Prox/Dis)
Person	358	85.6%	7.62	263 (73.5%) / 95 (26.5%)
Discourse	30	7.2%	0.64	Indeterminate
Temporal (lexical)	16	3.8%	0.34	14 (87.5%) / 2 (12.5%)
Spatial	7	1.7%	0.15	1 (14.3%) / 6 (85.7%)
Social	5	1.2%	0.11	5 / 0
Emotional	2	0.5%	0.04	0 / 2
TOTAL	418	100%	8.89	283 (72.9%) / 105 (27.1%)

Table 5. Deixis in total

Category	Num.	Per.	Frequency (x/100 words)	Distance (Prox/Dis)
Person	200	85.5%	9.24	172 (74.1%) / 28 (25.9%)
Discourse	15	6.4%	0.69	Indeterminate
Temporal (lexical)	10	4.3%	0.46	9 (90%) / 1 (10%)
Spatial	4	1.7%	0.19	0 / 4
Social	4	1.7%	0.19	4 / 0
Emotional	1	0.4%	0.05	0 / 1
TOTAL	234	100%	10.82	185 (84.5%) / 34 (15.5%)

Table 6. Deixis on Bodybuilding forum

Category	Num.	Per.	Frequency (x/100 words)	Distance (Prox/Dis)
Person	158	85.9%	6.23	91 (57.6%) / 67 (42.4%)
Discourse	15	8.2%	0.59	Indeterminate
Temporal (lexical)	6	3.3%	0.24	5 (83.3%) / 1 (16.7%)
Spatial	3	1.6%	0.12	1 (33.3%) / 2 (66.6%)
Social	1	0.5%	0.04	1 / 0
Emotional	1	0.5%	0.04	0 / 1
TOTAL	184	100%	7.26	98 (58%) / 71 (42%)

Table 7. Deixis on WoW forum

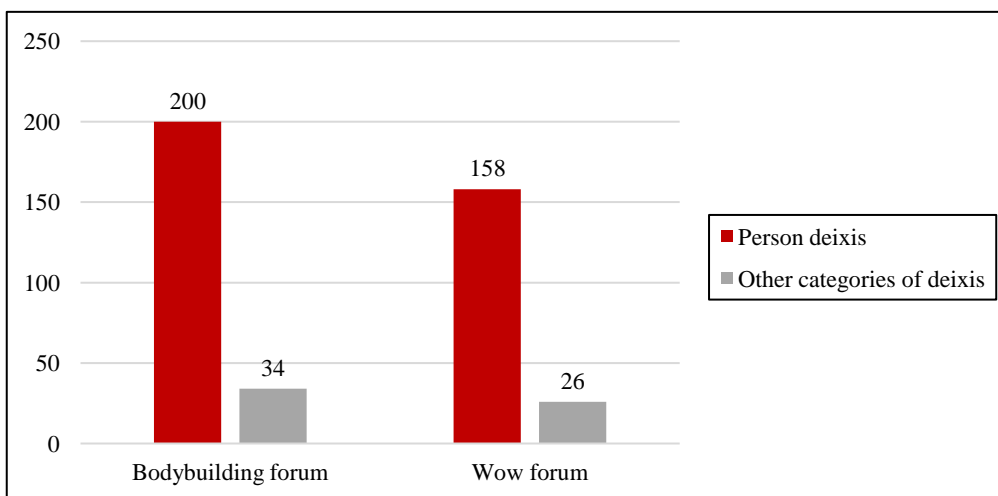


Figure 3. Distribution of person deixis compared to other categories

Distance	Pronoun	N. of occurrences	Percentage	Frequency (x/100 words)
Proximal	I	185	51.7%	3.94
	my	51	4.5%	1.09
	me	16	14.3%	0.34
	mine	1	0.3%	0.02
	myself	2	0.6%	0.04
	we	4 (1 inclusive)	1.1% (0.3%)	0.09 (0.02)
	us	2 (1 inclusive)	0.6% (0.3%)	0.04 (0.02)
	our	2 (1 inclusive)	0.6% (0.3%)	0.04 (0.02)
Distal	you	75 (26 generic)	20.9% (7.3%)	1.60 (0.55)
	your	18 (8 generic)	5% (2.2%)	0.38 (0.17)
	yourself	1	0.3%	0.02
	they	1	0.3%	0.02
TOTAL		358	100%	7.62

Table 8. Person deixis in total

Distance	Pronoun	N. of occurrences	Percentage	Frequency (x/100 words)
Proximal	I	123	61.5%	5.68
	my	33	16.5%	1.53
	me	13	6.5%	0.60
	mine	1	0.5%	0.05
	we	1	0.5%	0.05
	us	1	0.5%	0.05
Distal	you	23 (3 generic)	11.5% (1.5%)	1.06 (0.14)
	your	5 (1 generic)	2.5% (0.5%)	0.23 (0.05)
TOTAL		200	100%	9.25

Table 9. Person deixis on Bodybuilding forum

Distance	Pronoun	N. of occurrences	Percentage	Frequency (x/100 words)
Proximal	I	62	39%	2.44
	my	18	11.4%	0.71
	me	3	1.9%	0.12
	myself	2	1.3%	0.08
	we	3 (1 inclusive)	1.9% (0.6%)	0.12 (0.04)
	us	1 (1 inclusive)	0.6%	0.04
	our	2 (1 inclusive)	1.3% (0.6%)	0.08 (0.04)
Distal	you	52 (23 generic)	32.9% (14.6%)	2.05 (0.91)
	your	13 (7 generic)	8.2% (4.4%)	0.51 (0.28)
	yourself	1	0.6%	0.04
	they	1	0.6%	0.04
TOTAL		158	100%	6.23

Table 10. Person deixis on WoW forum

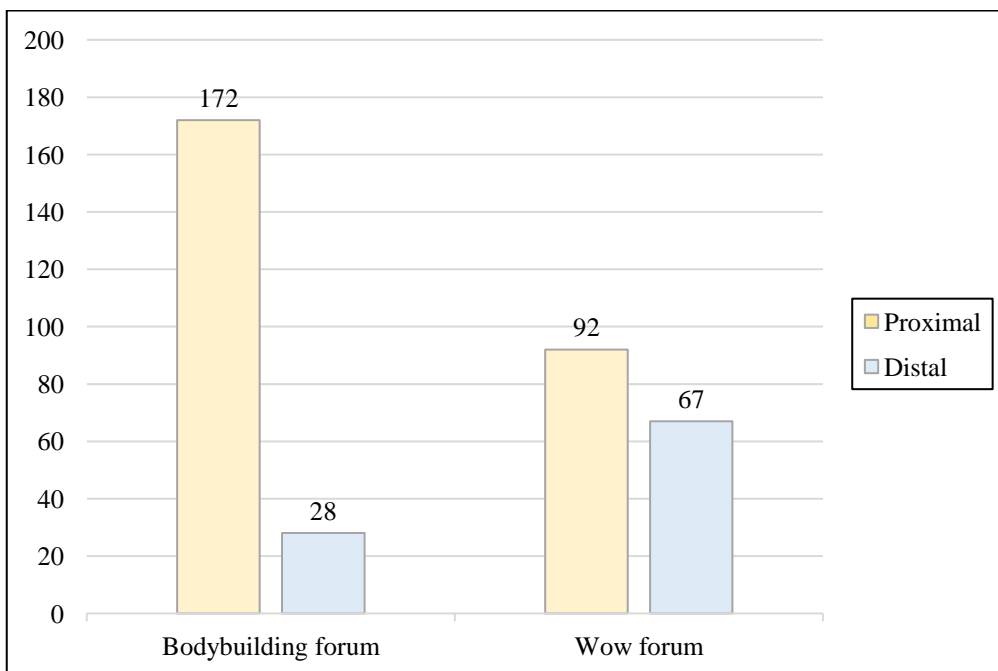


Figure 4. Distribution of proximal and distal person deictics

Distance	Address	N. of occurrences	Percentage	Frequency (x/100 words)
Proximal	man	1	20%	0.02
	big rigs	1	20%	0.02
	bro	1	20%	0.02
	mate	1	20%	0.02
	friend	1	20%	0.02
TOTAL		5	100%	0.11

Table 11. Social deixis in total

Distance	Address	N. of occurrences	Percentage	Frequency (x/100 words)
Proximal	man	1	25%	0.05
	big rigs	1	25%	0.05
	bro	1	25%	0.05
	mate	1	25%	0.05
TOTAL		4	100%	0.2

Table 12. Social deixis on Bodybuilding forum

Distance	Address	N. of occurrences	Percentage	Frequency (x/100 words)
Proximal	friend	1	100%	0.04
TOTAL		1	100%	0.04

Table 13. Social deixis on WoW forum

Distance	Expression	N. of occurrences	Percentage	Rel. frequency (x/100 words)
Proximal	come	1	14.3%	0.02
Distal	go	5	71.4%	0.11
	out there	1	14.3%	0.02
TOTAL		7	100%	0.15

Table 14. Spatial deixis in total

Distance	Expression	N. of occurrences	Percentage	Rel. frequency (x/100 words)
Distal	go	4	100%	0.19
TOTAL		4	100%	0.19

Table 15. Spatial deixis on Bodybuilding forum

Distance	Expression	N. of occurrences	Percentage	Rel. frequency (x/100 words)
Proximal	come	1	33.3%	0.04
Distal	go	1	33.3%	0.04
	out there	1	33.3%	0.04
TOTAL		3	100%	0.12

Table 16. Spatial deixis on WoW forum

Distance	Expression	N. of occurrences	Percentage	Rel. frequency (x/100 words)
Distal	those	1 (B. forum)	50%	0.02 (0.05 for B. forum)
	that	1 (WoW forum)	50%	0.02 (0.04 for Wow forum)
TOTAL		2	100%	0.04

Table 17. Emotional deixis

Distance	Expression	N. of occurrences	Percentage	Frequency (x/100 words)
Proximal	now	5	31.3%	0.11
	right now	1	6.3%	0.02
	currently	5	31.3%	0.11
	presently	1	6.3%	0.02
	at this point	1	6.3%	0.02
	for the past 10 years	1	6.3%	0.02
Distal	next xpac	1	6.3%	0.02
	soon	1	6.3%	0.02
TOTAL		16	100%	~0.34

Table 18. Temporal (lexical) deixis in total

Distance	Expression	N. of occurrences	Percentage	Frequency (x/100 words)
Proximal	now	4	40%	0.19
	currently	4	40%	0.19
	for the past 10 years	1	10%	0.05
Distal	soon	1	10%	0.05
TOTAL		10	100%	0.29

Table 19. Temporal (lexical) deixis on Bodybuilding forum

Distance	Expression	N. of occurrences	Percentage	Frequency (x/100 words)
Proximal	now	1	16.7%	0.04
	right now	1	16.7%	0.04
	currently	1	16.7%	0.04
	presently	1	16.7%	0.04
	at this point	1	16.7%	0.04
Distal	next xpac	1	16.7%	0.04
TOTAL		6	100%	0.24

Table 20. Temporal (lexical) deixis on WoW forum

Expression	N. of occurrences	Percentage	Frequency (x/100 words)
that	11	36.7%	0.23
this	7	23.3%	0.15
it	7	23.3%	0.15
well	2	6.7%	0.04
above	1	3.3%	0.02
these	1	3.3%	0.02
those	1	3.3%	0.02
TOTAL	30	100%	0,63

Table 21. Discourse deixis in total

Expression	N. of occurrences	Percentage	Frequency (x/100 words)
that	7	46.7%	0.32
It	4	26.7%	0.18
well	2	13.3%	0.09
this	1	6.7%	0.05
above	1	6.7%	0.05
TOTAL	15	100%	0.69

Table 22. Discourse deixis on Bodybuilding forum

Expression	N. of occurrences	Percentage	Frequency (x/100 words)
this	6	40%	0.24
that	4	26.7%	0.16
it	3	20%	0.12
these	1	6.7%	0.04
those	1	6.7%	0.04
TOTAL	15	100%	0.60

Table 23. Discourse deixis on WoW forum

Type	N. of occurrences	Percentage	Frequency (x/100 words)
Pronominal	78	67.2%	1.66
Demonstrative	20	17.2%	0.43
Temporal	18	15.6%	0.38
TOTAL	116	100%	~2.46

Table 24. Anaphora in total

Type	Anaphor	N. of occurrences	Percentage	Frequency (x/100 words)
Pronominal	she	21	18.1%	0.45
	it	17	14.7%	0.36
	they	15	12.9%	0.32
	them	9	7.8%	0.19
	their	6	5.2%	0.13
	her	4	3.4%	0.09
	itself	2	1.7%	0.04
	he	1	0.9%	0.02
	his	1	0.9%	0.02
	themselves	1	0.9%	0.02
	yourself	1	0.9%	0.02
Demonstrative	that	11	9.5%	0.23
	this	7	6.0%	0.15
	those	2	1.7%	0.04
Temporal	then	17	14.7%	0.36
	at that point	1	0.9%	0.02
TOTAL		116	100%	~2.46

Table 25. Anaphora in total

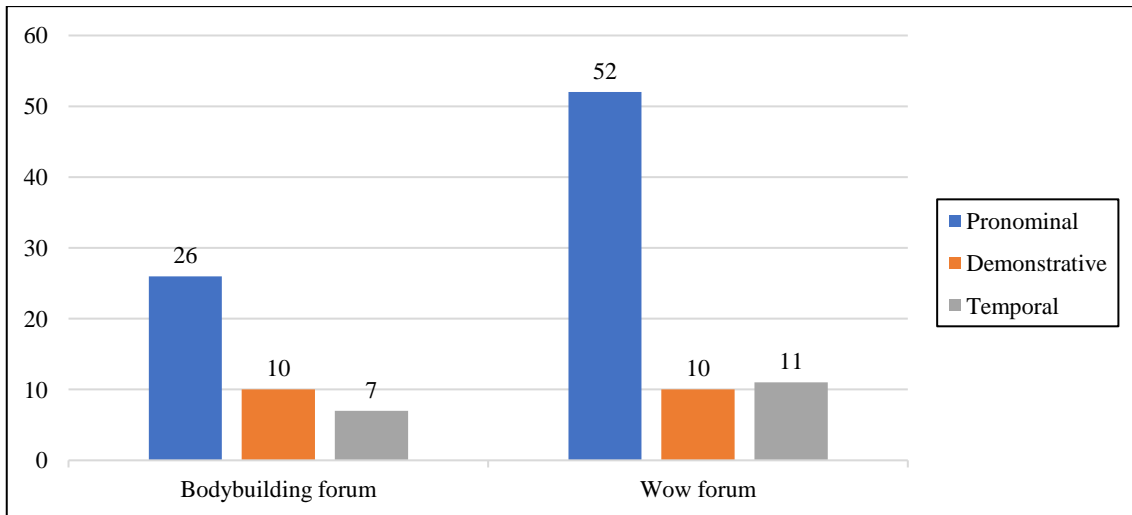


Figure 5. Distribution of anaphora on forums

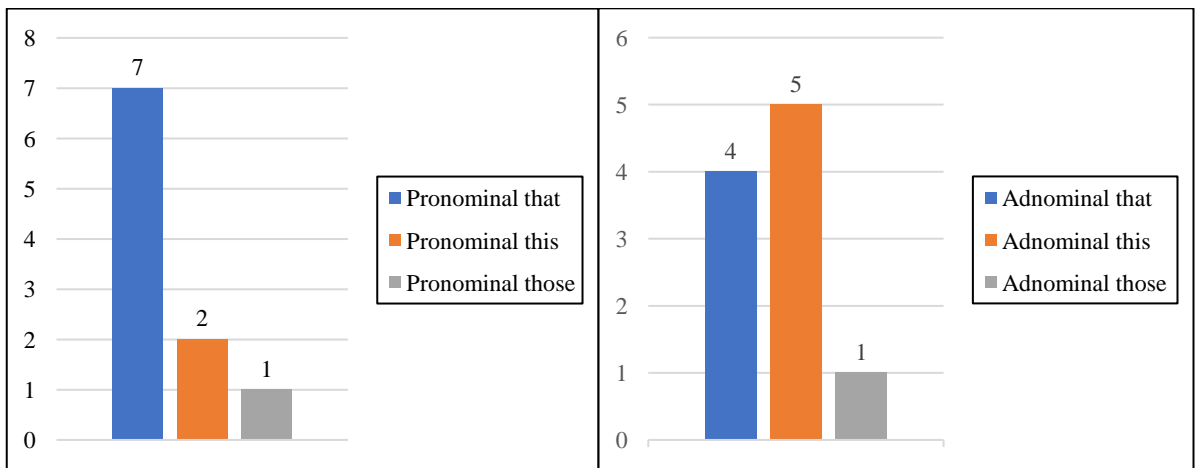


Figure 6. Pronominal demonstratives

Figure 7. Adnominal demonstratives

Type	N. of occurrences	Percentage	Frequency (x/100 words)
Pronominal	26	60.5%	1.20
Demonstrative	10	23.3%	0.46
Temporal	7	16.3%	0.32
TOTAL	43	100%	2,03

Table 26. Anaphora on Bodybuilding forum

Type	Anaphor	N. of occurrences	Percentage	Rel. frequency (x/100 words)
Pronominal	it	16	37.2%	0.74
	them	3	7%	0.14
	itself	2	4.7%	0.09
	she	1	2.3%	0.05
	he	1	2.3%	0.05
	his	1	2.3%	0.05
	they	1	2.3%	0.05
	their	1	2.3%	0.05
Demonstrative	that	8	18.6%	0.37
	this	1	2.3%	0.05
	those	1	2.3%	0.05
Temporal	then	6	14%	0.28
	at that point	1	2.3%	0.05
TOTAL		43	100%	~2.03

Table 27. Anaphora on Bodybuilding forum

Type	N. of occurrences	Percentage	Frequency (x/100 words)
Pronominal	52	71.2%	2.05
Demonstrative	10	13.7%	0.39
Temporal	11	15.1%	0.43
TOTAL	73	100%	2.87

Table 28. Anaphora on Wow forum

Type	Anaphor	N. of occurrences	Percentage	Frequency (x/100 words)
Pronominal	she	20	27.4%	0.79
	They	14	19.2%	0.55
	Them	6	8.2%	0.24
	Their	5	6.8%	0.20
	her	4	5.5%	0.16
	it	1	1.4%	0.04
	themselves	1	1.4%	0.04
	yourself	1	1.4%	0.04
Demonstrative	this	6	8.2%	0.24
	that	3	4.1%	0.16
	those	1	1.4%	0.04
Temporal	then	11	15.1%	0.43
TOTAL		73	100%	~2.87

Table 29. Anaphora on Wow forum

Appendix 3. From Gestures to Speech: Non-verbal Deixis

It has been postulated that deixis, in its broader sense, employs not only verbal means but also various gestures and acts of pointing. In this additional chapter, the non-verbal ways of deixis will be shortly summarised.

Williams states that deixis, in its broader meaning, may be applied to nonverbal resources such as pointing, gazing and any other conventional body movements (Williams 2019). In this respect, Fricke adds that if speakers want to achieve a mutual understanding in face-to-face conversation, then apart from words, they need to rely on various signals including gestures and other directive clues (Fricke 2014, 1803). Research indicates that a multitude of articulators might be used as a means of nonverbal deixis. Apart from the most typical hand pointing, these include pointing with nose, lips or even gazing.

Regarding the mundane hand-pointing, Fricke observes two different hand gestures based on their denotatum. The first is selected when pointing to a particular object, and she calls it *G-form gesture* (Figure 6a). The second is employed to signal a direction and is labelled *palm-lateral-open-hand gesture* (Figure 6b) (Fricke 2014, 1809). Similar results are observed by Cochet and Vauclair who found that index-finger pointing is more common when referring to proximal and more specific objects. In contrast, the whole-hand variation is preferred when pointing to an entity which is distal and generally larger or more abstract (Cochet and Vauclair 2014, 293–294).

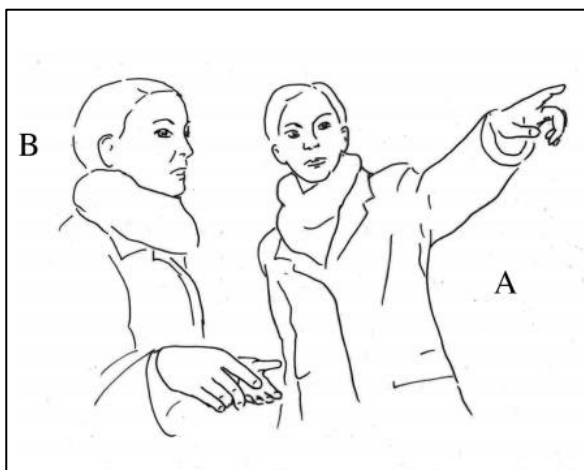


Figure 6a. pointing to specific objects
(Fricke 2014, 1809)



Figure 6b. pointing in a direction

Besides hand pointing, which is undoubtedly the most frequently applied, Sherzer presents the research of Cuna Indians who use lip gestures carrying a deictic function (see Figure 7a). He

observed that in some cases, individuals used the gesture accompanying the verbal realisation of deictic demonstrative *that* such as in “what’s that cloth?” (Sherzer, 1973, 117, 129). The topic is further described by Enfield who asserts that “Lip-pointing is a widespread but little-documented form of deictic gesture”. He concludes that its function among Lao community is “distributionally restricted to cases in which the location or identity of the referent is in focus in the utterance”. That is, the lip gesture (see Figure 7b) appears as an answer to *where* or *which one* questions, for it shows the direction (Enfield, 2001, 207-208).



Figure 7a. Lip-pointing in Cuna Indians (Sherzer 1973, 117)



Figure 7b. Lip-pointing in inhabitants of Lao community (Enfield 2001, 190, figure 4)

The next behaviour observed to carry a deictic function is gazing. According to Shepherd, humans frequently use gaze as a deictic means to manipulate the attention of others, albeit frequently autonomically. He explains that when people gaze, the gaze-following behaviour of others appears somewhat reflexively in reaction. He further explains that “human adults understand that gaze both constrains what another can see and signals what in the visual field they find most relevant” (Shepherd 2010). In this regards, gaze-following reactions are nowadays extensively studied by psychologists, since it appears that the gaze-following behaviour in infants correlates with their language development. As a result, the insensitivity to someone’s gaze might be an early manifestation of autism even before the speech starts to develop. For more, see Parsons et al. (2019).

Lastly, it should be noted that non-articulated deictic expressions have repeatedly been observed in animals, namely monkeys and apes. They use both orofacial (voice) and manual (hand) systems to communicate with their peers (Vilain et al. 2011, 198). Nonetheless, these rather simple communication acts of primates are by no means equal to double articulated language unique to humans. However, it is frequently hypothesised that deictic gestures as

present in non-human apes hold the key to language origin in humans and pose its closest evolutionary precursor.

Appendix 4. Distinctive Linguistic Features of CMC

1. Word-Formation Processes

In this additional chapter, the most palpable distinctive features of CMC will be briefly discussed in more detail, especially from the viewpoint of internet forums. They are described in two main categories, i.e. word-formation processes and paralinguistic mimics.

The first characteristic aspect of CMC concerns word-formation processes. In electronic registers, it seems that processes supporting language economy, i.e. *initialisations*, *clippings* and *number-based replacements*, are the most frequent. They are present in all registers of CMC, though some differences might be found, mainly in the quantity of distribution. Usually, they are more frequently utilised in instant-messaging or chat groups where the space for the text is limited, and responses tend to be shorter and generally closer to spoken language. In this respect, it should be stressed once again that on internet forums, there is a wide variability concerning the length of posts and their linguistic features among different forums and their users.

Frequent use of initialisations is significant in CMC in general, including internet forums. Sun explains that these are new words created by joining the initial letters of a phrase, and pronounced letter by letter (Sun 2010, 99–100). In this respect, it must be noted that these are initialisations describing emotions or other verbal propositions, which are distinctive, for typical examples such as *LOL* (*laughing out loud*) or *IDK* (*I don't know*) are generally not used outside CMC. On the other hand, nominal acronyms such as NATO are used frequently outside the CMC dimension. This frequent use of initialisations to describe emotions, commands and other verbal operations stems mainly from the need for the language economy as typing the whole phrase is not convenient. In fact, it appears that some initialisations evolved in specific expressions irreversibly substituting their original full forms; hence using their full realisations (such as *laughing out loud* instead of *LOL*) in a forum discussion or instant messaging would be inappropriate and may feel somehow marked¹⁸ or outright awkward.

Expressions can be further abbreviated by clipping. As Sun explains, four main categories can be distinguished, i.e. front clipping (*cause*), back clipping (*hang on a sec*), both front and back clipping (*cuz*) and phrase clipping (*pub*) (Sun 2010, 99). Thurlow (2003, 15) adds the category

¹⁸ For example, it might be interpreted as irony.

of g-clipping, i.e. *goin*. It then appears that front and back clippings, along with the g-clipping, are particularly frequent on forums, reducing the total amount of text as produced by users.

The last type of employed abbreviating concerns various letter and number-based replacements, such as *U* (you) or *m8* (mate), which Kalima calls *homophonic iterations* for they are basically homophones given a shorter orthographic form (Kalima 2007, 9). Bodomo further distinguishes *letter homophones* such as *U* (you) or *number homophones* such as *m8* (mate) (Bodomo 2010, 14–15). That said, homophonic type of abbreviating appears to be less common on internet forums than in instant-messaging. The possible reason for this is that present-day internet forums are usually not restricted in terms of text length and are perhaps still primarily accessed from the desktop (at least when participants plan to join the discussion). Therefore, as typing on the hardware keyboard is more convenient than typing using a touch screen of the phone, it appears there is no such urgent need for shortening the text.

2. Paralinguistic Mimics

Paralinguistic features adding face-to-face elements to text-based communication (i.e. emoticons/facial emoji) are considered a hallmark of the CMC, occurring both in instant-messaging where they are, at some point, almost always present, and frequently on online forums, too. Aldunate and Gonzales-Ibáñez explain that they occur as a substitution for non-verbal facial expressions ubiquitously present in everyday face-to-face conversation where their primary function is predominantly social, i.e. to convey emotions and maintain a relationship with the addressee (Aldunate and Gonzales-Ibáñez 2017, 2). Nevertheless, as Walther and D’Addario explain, even such a basic emoticon as that of a smile (☺) may signal whole different emotions, depending on the context and verbal message it accompanies. For example, it can serve as a marker of amusement (when combined with a positive message) or sarcasm (when combined with a negative message) (Walther and D’Addario 2001).¹⁹ However, as Dresner and Herring add, the view that emoticons are mainly emotional icons seems to be erroneous. They argue that facial emoticons also appear to function as indicators of illocutionary force; hence their use is perhaps more expressive than just purely emotional (Dresner and Herring 2010, 263).

¹⁹ In her study, Wolf found that though the use of emoticons among genders seems to be similar, females tend to use smile emoticon to express humour, whereas males appear to use a smile emoticon in sarcastic and teasing manner (Wolf 2000, 832).

With the advances in technology, traditional emoticons have evolved into fully animated *emoji*, which could be considered a more visually sophisticated version of emoticon. Nevertheless, Siever explains that emoji can be both facial, carrying the same functions as the traditional emoticon or non-facial, fulfilling a referential purpose by depicting a variety of entities, such as animals, food and an abundance of other objects (Siever 2020, 128–137). The scheme of emoticons and emoji is seen in Figure 8 below.

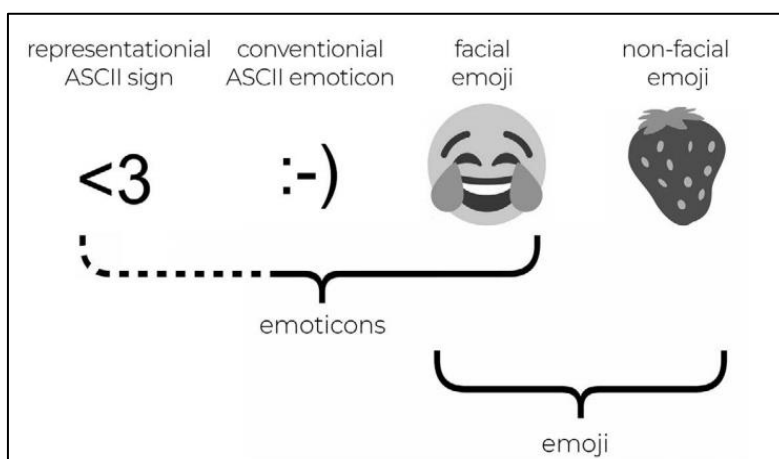


Figure 8. Scheme of emoticons and emoji (Siever 2020, 128, figure 7.1)

Apart from emoticons and emoji, paralinguistic features of the face-to-face language can also be conveyed by various means of graphical deviations and estrangements. Indrová explains that as there is no way of showing emphasis by variation of pitch, rhythm and intonation of one's speech, users on online forums (and CMC in general) use various sophisticated text-based means to mimic those prosodic features. These include textual shouting, which is realised by using all-capital lettering, frequently accompanied by punctuation marks (*WHAT?!*); making a pause accomplished by layering of dots; or emphasizing by repeating characters and punctuation marks (*sooo good!!!*) (Indrová 2011, 31–33). However, it must be noted that this emphasis is frequently perceived negatively by other users and can be viewed as flaming.²⁰ Therefore, depending on the rules and level of forum control, such behaviour may be punished by banning the user from further accessing the forum.

Moreover, generally casual style of internet forums encourages impromptu writing, mimicking the spoken communication. In this regard, various misspellings, inappropriate punctuation, frequent use of colloquialisms and slang frequently appear.

²⁰ Flaming is an aggressive behaviour towards other participants on the forum, frequently involving swearing and derogatory terms. From the Gricean theory of maxims, it is viewed as intentionally uncooperative behaviour violating predominantly the manner maxim (Crystal 2006, 58–61).

Appendix 5. Forum Formats and Subject Matter

In this additional chapter, I would like to comment on differences in technical parameters of forums and their potential impacts on the language use. First and foremost, forums can generally be divided into three categories based on their display format, i.e. *non-threaded*, *semi-threaded* and *fully-threaded forums* (Rhoades and Rhoades 2013, 69). The simplest type is a non-threaded forum format which Indrová describes as a chronologically organised notice board with no division of posts according to their topic (Indrová 2011, 16). In other words, on such forum, posts concerning the general forum topic are posted and not further sorted in any way. Accordingly, this type of forum is used mainly for announcements of some central authority, such as company or school rather than discussions, since the lack of sorting into threads and no possibility of direct replies to individuals make the discussion poorly organised and somewhat chaotic.

The second type of display format to describe is a *semi-threaded* format. Rhoades and Rhoades explain that such type is significant for allowing to start specific threads, which comprise individual discussions. These are then discussed by many participants who can post their opinions on such topics (Rhoades and Rhoades 2013, 69). Importantly, participants cannot create any sub-threads in an already created thread – they can solely reply to the topic question as stated in the name of the thread and cannot reply to posts of other participants in the thread discussion.²¹ This is the most common display format of online forums and forums of this type are included in the analysis.

The third and last type is a *fully-threaded* forum. It is the most complex format of the three, which allows users to create sub-threads in the thread discussion (Rhoades and Rhoades 2013, 69). In other words, once a participant of the discussion posts their opinion on the main thread question/topic, other participants can further discuss the opinion – such opinion is then another “thread in a thread”. Such forum threads then get somewhat deeper than longer in their layout.

From the viewpoint of the subject matter, Chabr claims that online discussion forums can revolve around different topics which can be completely general, e.g. *Reddit* or *Quora*; based on a particular field, e.g. health forum or even more specific, e.g. lymphoma forum (Chabr

²¹ They can, of course, react to other participants; however, the forum format does not allow them to create any new nodes of discussion in its layout.

2017, 41). Moreover, some forums are accessible to the wide public without any restrictions, whereas others require registration or even verification of some kind.²²

²² These can include, for instance, profession forums for experts or forums concerning adult content.