0. Preliminary remarks
This is a small case study of Goidelic adjectives denoting the physical qualities of heaviness and lightness, namely trom and éadrom in Irish and trom and aotrom (eutrom) in Scottish Gaelic. Both go back to Old Irish. I will refer to them by their Old Irish forms tromm and étromm1 in generalisations. Étromm is derived from tromm with a negative prefix é, suggesting a high level of structural symmetry. However, this proves not to be the case, and étromm appears to be a lot more than just “not tromm” even at the earliest stage. Moreover, distribution of both trom and étromm differs substantially in Modern Irish and Scottish Gaelic although these languages are closely related. What makes this kind of adjective especially interesting is A. Wierzbicka and C. Goddard’s assumption that “physical quality concepts refer to embodied human experiences and embodied human sensations” (Goddard & Wierzbicka 2007: 765). In other words, we call something ‘heavy’ not because it has some specific weight, but rather because we feel this weight. The analysed Goidelic data fully support this statement.

1. Related work

1 I use the spelling of the corresponding headwords in the electronic edition of DIL, http://dil.ie.
One of the latest substantial studies in this field is a PhD thesis on the polysemy and distribution of the German adjectives *hart* ‘hard, rigid’, *weich* ‘soft, pliant’, *sanft* ‘soft, tender’ and *grob* ‘rough’ (Bons 2009). The main method used here is corpus analysis, and meaning is defined as a spectrum of occurrences (Bons 2009: 3). Another researcher belonging to this school and specializing in historical semantics, G. Fritz, proposes a comprehensive study of German *scharf* ‘sharp’ (Fritz 1995; Fritz 2005: 18-30). He mainly uses the analysis of collocability to describe the semantics of adjectives, which places him close to the Moscow Semantic School.

2. Data
The research was mainly corpus-driven: the use of large language corpora as a source of data ensures the representativeness of the sample and facilitates preparatory work. Modern Irish examples were drawn from the New Corpus of Ireland (*Nua-Chorpas na hÉireann*) containing more than 3000 instances of *trom* and a little fewer than 1000 instances of *éadrom* in a total of 30 million words. Scottish Gaelic data was derived from the Corpus of Scottish Gaelic (*Corpas na Gàidhlig*), where *trom* occurred about 2000 times, and *aotrom* occurred about 500 times in ten million words. For each of these adjectives, I took a random sample of 100 with the use of built-in corpus tools.

There is no tool to obtain a fixed number of randomly chosen Old Irish examples of a given word, so I had to select them manually from Medieval Irish literature and glosses, applying the method of continuous sampling. I used the standard print (Stokes 1887) edition of the Würzburg glosses, the electronic edition of the Milan glosses made by D. Stifter and A. Griffith, and the electronic edition of the St. Gall glosses made by R. Hofman and P. Moran. Apart from glosses, my historical corpus includes two versions of *Táin Bó Cuailnge* (‘The Cattle Raid of Cooley’), *In Cath Catharda* (‘The Civil War of the Romans’), *Betha Choluim Chille* (‘Life of Columcille’), *Buile Shuibeine* (‘Suibhne’s Frenzy’) and *Cath Finntrágha* (‘The Battle of Ventry’); all of them are cited according to the electronic editions available on the UCC CELT website. The texts I chose for the corpus belong to different genres and language periods (Old Irish, Middle Irish, and Early Modern Irish) and contain both prose and verse, which makes the corpus more or less representative. Thus, the resultant dataset consists of three major parts: Modern Irish data (200 examples), Scottish Gaelic data (200 examples), and historical data (127

---

2 [http://www.univie.ac.at/indogermanistik/milan_glosses.htm](http://www.univie.ac.at/indogermanistik/milan_glosses.htm)
3 [http://www.stgallpriscian.ie/](http://www.stgallpriscian.ie/)
examples, 88 for tromm and 39 for étromm). Unfortunately, I could not collect enough Manx data to analyse it alongside Irish and Scottish Gaelic, and therefore I do not consider it in generalizations.

A dynamic representation of the whole dataset built with Shiny, a web application framework for the R programming language, is available at https://ancatmara.shinyapps.io/heavylight/. It is fully searchable, and the data can be filtered by language (Modern Irish, Early Modern Irish, Middle Irish, Old Irish and Scottish Gaelic), quality (heavy or light), sense and collocation. The meta information includes genre (or rather form: prose, poetry, drama), period (8th, 9th, 12th, 15th, 17th and 19th centuries; 1900-9; 1950-99; and 2000-) and source.

A corpus of 500 sentences might be insufficient for strong statistical conclusions; however, it is enough to describe the semantic structure of tromm and étromm throughout history.

3. Collocability
The meaning of a word can only be described in context, and this is true for polysemous lexemes. In other words, “you shall know a word by the company it keeps” (Firth 1957: 11). To characterize adjectives, it is convenient to use the semantic classes of the nouns with which they form collocations. I divided all the collocates of tromm and étromm that occurred in my working corpus into several classes of different levels. As some of the nouns would not form solid groups of a lower order, I had to use higher order classes like ‘abstract notion’ along with lower order classes like ‘colour’. Despite the difference in hierarchy, each of them is clearly defined, and every noun belonging predominantly to a particular class triggers a particular sense. In labelling these classes, I draw upon the English WordNet developed by Princeton University (Fellbaum 2006). It is also worth mentioning that I excluded obvious calques (‘heavy industry’, ‘heavy metal’, ‘light gas’) from the list of collocations, which lessened the number of examples. It may seem that word combinations like ‘tromm / éadromm + colour’ are also calques, but I presume they are not, because such examples are cited in DIL and therefore cannot have been copied from modern English.

Here is a brief explanation of the semantic classes used to describe the meaning of tromm and étromm. The abbreviations for languages are as follows: Modern Irish – Ir, Early Modern Irish – EMIr, Middle Irish – MIr, Old Irish – OIr, and Scottish Gaelic – SG. The absolute frequency of different collocations is shown in Figure 1.

Abstract notion is the broadest class that includes various words with abstract meanings that did not fall into any other category, like Ir peaca ‘sin’, cuíis ‘reason’, coir ‘crime’, éagóir ‘injustice’, pionós

Physical object is another broad class used for any object that does not belong to other categories: Ir ualach ‘load’, meaisin cóipeála ‘copier’, sliogán ‘shell’, cloch ‘stone’, bróga ‘shoes’; SG sac ‘bag’, bòrd ‘table’; OIr claidéb ‘sword’, gae ‘spear’; MIr tonn ‘wave’.

Quality is the third broadest class for any quality that can be expressed to a different extent: Ir beo ‘alive’, daite ‘dyed’, scagtha ‘sparse’.

Activity is another rather broad class that comprises various names of actions: Ir obair ‘work’, ól ‘drinking’, buille ‘blow’, gnóthai ‘business’; SG atharrais ‘mimicking’, osnaich ‘sigh’.

Container is a type of object that can be filled with something, e.g. Ir lámh ‘hand’, póca ‘pocket’; SG suilean ‘eyes’, pòca ‘pocket’.


Substance is used for objects that can be characterized by their density: Ir ceo ‘fog’, talamh ‘ground’, lóis ‘lotion’, ithir ‘ether’, fèar ‘grass’; SG ceò ‘fog’, neòil ‘clouds’, falt ‘hair’.

Locomotion stands for any kind of active movement: Ir coiscéim ‘footstep’; SG ceum(an), saltair ‘footstep(s)’, siubhal ‘walk’.


Atmospheric condition is a class of physical phenomena that somehow influence one’s physical state: e.g., Ir teas ‘heat’, aer ‘air’ and boladh ‘smell’.


Group of people is a small class including mainly names of different armed groups: Ir marcshlua ‘cavalry’; MIr slúagh ‘host, army’; EMIr dámh ‘company’.

Psyche is used for nouns that metaphorically indicate one’s emotional state: e.g., Ir croí ‘heart’; SG suilean ‘eyes’, cridhe ‘heart’, spiorad ‘spirit’, intinn ‘mind’, aigne ‘mind, disposition’.
**Emotion** includes such nouns as Ir *eagl* ‘fear’; SG *gaol* ‘love, affection’, *graidh* ‘love’, *amharus* ‘doubt’, *brôn* ‘grief’; OIr *erfath* ‘terror’, *gráin* ‘terror’.


**Colour** is simply colour: Ir *liathchorcra* ‘greyish purple’, *buíghlas* ‘yellowish green’, *donn* ‘brown’.

**Machine** stands for any mechanism, including vehicles: Ir *gunna* ‘gun’, *feithcil* ‘vehicle’; SG *carbad* ‘chariot’; MIr *long* ‘ship’.

**Money** is used for nouns that signify sums of money: Ir *airgead* ‘money’, *fineáil* ‘fine’, *cáin* ‘fine, tax’, *infheistiocht* ‘investment’; SG *òr* ‘gold’.

**Food** is for words like Ir *lón* ‘lunch’, SG *biadh* ‘food’.

**Sleep** combines different words for sleep: Ir *néal, codladh, suan* ‘sleep’; SG *suan, cadal, neòil* ‘sleep’.

![Fig. 1](image_url)
4. Semantic classification

The problem of separating individual meanings cannot be solved in a univocal way, and the level of detail depends on the researcher’s task (Fritz 1995: 83). As my goal was to give a comprehensive analysis of *tromm* and *étromm* in Goidelic languages throughout their history, it seems reasonable not to make very broad generalizations.

Apart from collocations, I will provide short, intuitively understandable descriptions of individual senses like those often seen in dictionaries. To organize these senses, I have used a semantic classification developed by cognitive scientists for English in the case of the concepts ‘heavy’ and ‘light’ (Shirshikova 2013). Thus, there are four semantic domains where ‘heavy’ and ‘light’ have different meanings depending on their communicative functions:

1. **Experiential domain**, where we evaluate the dynamic interaction with an object: “something that is heavy weighs a lot” (*Collins Cobuild*), “difficult to lift or move” (*Oxford Learners*).

2. **Parametrical domain**, where we evaluate some parametrical characteristics of an object not to be moved: “Someone or something that is heavy is solid in appearance or structure, or is made of a thick material. Heavy means great in amount, degree, or intensity” (*Collins Cobuild*).

3. **Psycho-physiological domain**, where we evaluate the effect on our physical state of interaction with an object. For example, “a heavy meal is large in amount and often difficult to digest; heavy work requires a lot of strength or energy” (*Collins Cobuild*).

4. **Emotional domain**, where we evaluate the emotional impact of interaction with an object as if we evaluated the physical effect of such an interaction. “A situation that is heavy is serious and difficult to cope with. If your heart is heavy, you are sad about something” (*Collins Cobuild*).

Here is a list of individual senses forming each of these domains, and some examples to illustrate them. Each entry consists of a quality expressed by *tromm* or *étromm*, a collocate, and a short dictionary-style description of a sense.
1. Experiential domain
1.1 Weight + physical object: ‘hard / easy to lift or move’

Ir Bhí ualach sách trom ar an gcairrin
‘There was a quite heavy load on the cart’

SG Bha bròga aotrom samhraidh oirre
‘She wore light summer shoes’

OIr Dochúatar bara claidbib tromma tortbullecha
‘They wielded their heavy, hard-smiting swords’

2. Parametrical domain
2.1 Amount + money: ‘big / small in amount’

Ir Cuirtear fineáil trom ar a leithéid
‘The likes of it/him are subject to a big fine’

2.2 Appearance + living being, physical object: ‘bulky / fine, delicate’

Ir Thug Doiminic iarraidh éirí ón chathaoir ach ba fear trom toirteach é agus thit sé siar aris
‘Dominic tried to get up from the chair, but he was a bulky man, and he fell down again’

2.3 Depth + sleep: ‘deep / not deep’

Ir Aineoinn an drochbholadh thit néal trom codladta orm a bhi lán le brionglóidí
‘In spite of the bad smell I fell into a deep sleep full of dreams’

SG Thàinig cadal trom air Murchadh ‘Murdach fell into a deep sleep’

OIr inlaithertach .i. is gnath is trom a chotlud adi , is cián m bis ánd
‘the drunk one, i.e. it is usual that his sleep is heavy, and it is long that he usually is in it’

2.4 Density + layer, substance: ‘dense, thick / thin’

Ir Ní fheicfí rud ar bith trí na cuirtíní troma sin ar aon chaoi
‘Anyway, you wouldn’t see anything through these thick curtains’

Ir ‘Tá an ceo chomh trom is a bhí sé riamh,’ ar seisean
‘The fog is as thick as it has ever been’ – said he’
2.5 Emptiness + container: ‘full / empty’

Ir Bhagair sí a lámh air, lámh a bhí trom le seoda
‘She threatened him with her hand, a hand full of jewels’

Ir Ar an taobh eile den scéal, bhí an t-am aige a d’fhág na pócaí sách éadrom aige féin
‘On the other side of the story, he had a time that left his pockets quite empty’

SG Cha roibh iad faisg gu leor air gus fhacinn gu roibh ’shúilean trom le doir‘
‘They weren’t close enough to him to see that his eyes were full of tears’

2.6 Significance + abstract notion: ‘grave, serious / insignificant’

Ir Más rud é go bhfuil an choir chomh trom sin nó má tá cuinsi faoi leith i gceist...
‘If the crime is that grave or if there are special circumstances in question...’

Ir Cuireann múinteoirí tacaiochta seirbhís ar fáil do pháistí a bhfuil deacrachtai foghlama éadrom nó measarthta acu
‘The teachers provide help for children who have slight or moderate difficulties with studies’

2.7 Severeness + abstract notion: ‘harsh, severe / mild’

Ir Bhí sé ráite ar a chuíl go mbeadh pionós an-trom ar an fhostóir nach mbeadh na coinniollacha seo comhionta aige
‘It was said behind his back that there would be a very harsh punishment for every employer who wouldn’t fulfill these conditions’

SG Bha an lagh trom an aghaidh na h-oibreach
‘The law was severe to the workers’
2.8 Capacity + machine: ‘high-capacity / low-capacity’

Ir *Ar an dtaoibh eile, tá dún Israeilach, é daingnithe ag mean ainghun nai agus ag gunnaí troma*
‘On the other side there is an Israeli fortification guarded by machine guns and heavy artillery’

2.9 intensity + activity, feeling, physical phenomenon, quality:
‘intense / weak, not intense’

Ir *‘Ní hé amháin sin’ a deir Denise. ‘Bhiodar ag ől trom ó bhi siad ceathair déag’*
‘Not only him’ – said Denise. ‘They were drinking heavily since they were fourteen’

SG ‘*S cho trom mo ghaol ’s cho buan*’
‘And my love is so intense and so beautiful’

Mir ...guro tuıseat ’na frasaibh agus ’na tolaibh tromfertaí i ceannaibh, i corpaib na miledh.
‘…so that the missiles fell in rains and heavy-pouring floods on the heads and bodies, on the chests and forebreasts of the soldiers’

2.10 Quality of sound + sound: ‘loud and unpleasant / quiet and pleasant’

Ir *Chuala sí guth éadrom ina cluais*
‘She heard a quiet voice in her ears’

SG *Rinn Iain gàire aotrom*
‘Iain laughed softly’

SG *Rinn e fead throm, thùrsach*
‘He whistled loud, wearily’

2.11 Quality of movement + living being, locomotion, machine:
‘moving slowly and with difficulty / moving fast and without difficulty’

SG ‘*S trom mo cheum, cha n-eil mi sunndach*’
‘And my step is heavy, I am not cheerful’

SG *Bha mise cho aotrom air mo bhonnann ri luaireag*
‘I was as fast on my soles as a storm petrel’
2.12 Quality of colour + colour: ‘dark / pale’

Ir *Dath donn éadrom a bhíonn ar na síolta agus bhionn fáinne crotal ar a mbarr*
‘The seeds are *light brown* of colour and have a circle of rind on top’

3. Psycho-physiological domain
3.1 Physical impact + activity, atmospheric condition: ‘tiresome / unfatiguing’

SG *Tha an obair seo fada ro throm air do shon, ars esan*
‘This work is too *hard* for you, – said he’

Ir *Luigh an boladh i bhfad ní ba troime ar mo scamháin anseo ná in áit ar bith eile*
‘A much heavier smell laid on my lungs here than anywhere else’

3.2 Quality of food + food: ‘hard to digest / digestible’

Ir *Bíonn Upstairs at Cooke’s ar oscailt óna 10 am go 6 pm agus is fiú bualadh isteach chun lôn éadrom a fháil, go háirithe má thaitnionn quesadillas leat*
‘Upstairs at Cooke’s is open from 10 am to 6 pm, and it’s worth dropping in for a *light lunch*, especially if you like quesadillas’

4. Emotional domain
4.1 Emotional impact + abstract notion : ‘oppressive, hard to bear/ pleasant, comfortable’

Ir *Eitseálacha atá le feiceáil ó Hasegawa agus atmaisféar aerach éadrom le brath iontu*
‘You can see Hasegawa’s etchings and feel a joyous *pleasant atmosphere* in them’

SG *Bha tosd trom, marbh mar sgàil*
‘Silence was *heavy*, dead like a shadow’

Mlr *Na trí coicait, tromm in t-aire isin oidche ba mor pian*
‘The three fifties – *sore the watching* – in the night—great was the pain’
4.2 disposition + human being, psyche: ‘sad, oppressed / cheerful, light-hearted’

Ir Ansin rinne sé osna throm ‘He gave a sad sigh’

Ir Ní raibh iontu ach gasúrai, agus bíonn an croí éadrom neamhghiartha ag an óige
‘They were just children, but the young have a light careless heart’

SG Ach cha chuireadh sin campair ar spiorad aotrom an latha ud
‘But it didn’t vex our light spirit those days’

SG Tha m’inninn trom, gun sunnd, gun fhonn
‘My mind is heavy, without joy, without pleasure’

5. Out of domains (only for tromm)
5.1 ‘Weighed down’ + physical object, living being

Mr Ba hiomhda ann ámh crann caomháloinn co tóirthe trom na thóthachta isin all hisin
‘Numerous too on that cliff were the beautiful trees, heavy and rich with fruits’

5.2 ‘Pregnant’ + living being

Mr Co cingítis righna rotroma, nó seisi sloigh romoir, no assain fo n-eireadhb fortha on aircenn co araill don cath cechtarda
‘So that gravid queens, or bands of a mighty host, or asses under their burdens, would go from one end to the other of the battle on each side’

All the senses of the parametrical domain except 2.2., 2.5. and probably 2.11. can be described as instances of Magn and AntiMagn lexical functions introduced in (Melchuk 1974) within the Meaning-Text Theory. Given that Magn stands for ‘very’, ‘to a (very) high degree’, ‘intense(ly)’, and AntiMagn is the opposite, we can produce the following equations:

Magn[‘peaca’] = ‘trom’
Magn[‘uisge’] = ‘trom’
AntiMagn[‘ceo’] = ‘éadrom’
AntiMagn[‘ceò’] = ‘aotrom’ etc.

Although the working corpus is quite small, it is possible to obtain a rough impression of the frequency and distribution of different senses. Figure 2 shows the overall picture. The top 5 qualities characterized by tromm
according to the example count are intensity (~ 25%), disposition (~ 12%), weight (~ 12%), density (~ 12%), significance (~ 5%) and the quality of movement (~ 5%). The distribution is different for étromm: the quality of movement (~ 26%) is the most frequent sense, followed by density (~ 19%), weight (~ 12%), intensity (~ 11%), disposition (~ 6%) and the quality of sound (~ 6%).

In Modern Irish (fig. 3 below), the most frequent qualities are intensity (~ 21%), density (~ 16%), weight (~ 14%), amount (~ 8%), emotional impact (~ 6%) and significance (~ 6%) for trom and density (~ 32%), intensity (~ 22%), weight (~ 14%), the quality of movement (~ 9%) and disposition (~ 5%) for éadrom.

In Scottish Gaelic (fig. 4 below), the sense distribution is the following: intensity (~ 20%), emotional impact (~ 13%), the quality of movement (~ 11%), disposition (~ 10%) and depth (~ 9%) for trom and the quality of movement (~ 30%), disposition (~ 22%), the quality of sound (~ 10%), physical impact (~7%) and weight (~ 7%) for aotrom. As we can see, trom is mostly ‘intense’ both in Irish and Scottish Gaelic, while éadrom is ‘thin’ and ‘not intense’ in Irish, but aotrom is ‘moving fast or without difficulty’ and ‘cheerful, light-hearted’ in Scottish Gaelic.
There are many fewer examples and therefore fewer senses in the historical part of the corpus, but it is worth having a quick look at the statistics.

Again, *tromm* is mostly used to describe intensity (~31%), then comes emotional impact (~17%), then weight (~13%), density (~11%), significance (~7%) and the quality of sound (~5%).

*Étromm*, as in Scottish Gaelic, predominantly characterizes the quality of movement (~44%) and is also frequently used to describe density (~15%), emotional impact (~13%), weight (~13%) and severity (~8%).
PHYSICAL QUALITIES IN Goidelic

![Graph showing physical qualities in Goidelic](image)

Fig. 4

HISTORICAL DATA

![Graph showing historical data](image)

Fig. 5

84
5. Conclusions
First, both tromm and étromm occur much more infrequently in their direct physical meanings than in figurative ones that belong to parametrical and emotional domains; collocations with physical objects are outnumbered by collocations with abstract nouns of various classes in all the languages. Therefore, for some purposes is may be reasonable to range senses in a dictionary entry according to their frequency.

Second, the most frequent collocations are ones where tromm and étromm express the (Anti)Magn lexical function. In second place are the descriptions of movement, and étromm is a lot more frequent than tromm in this context in all Goidelic languages. Collocations where tromm and étromm have their direct meanings, ‘hard / easy to lift or move’, come third; they are followed by collocations with nouns of the {living being} and {psyche} classes, where tromm and étromm describe an emotional state. The latter are more frequent in Scottish Gaelic than in Irish, but this might be explained by the contents of the Scottish Gaelic corpus, which contains many folklore texts.

Third, tromm is widely used as an intensity marker in both modern and historical data, while étromm marking ‘negative intensity’ is typical only for Modern Irish. According to the general semantic structure of these adjectives, Scottish Gaelic appears to be closer to the historical data than Modern Irish, but it might also be explained by the nature of the texts in the corpus of Scottish Gaelic, and by the scarcity of historical data. The counts of each collocation and sense are given in Appendices I and II respectively.

National Research University Higher School of Economics, Moscow

References


Kashkin, E., 2012, Свойства поверхностей как объект лексической типологии: направления и перспективы исследования (на материале некоторых уральских языков) [Qualities of surface as an object of lexical typology: directions and research perspectives (on some Uralic data)], TSPU bulletin.


Pavlova, E., 2012, ‘Качественные признаки “мягкий” и “твердый” в типологической перспективе’ [The Qualities ‘soft’ and ‘hard’ from a Typological Perspective], MA thesis, Moscow: MSU.


## Appendix I

<table>
<thead>
<tr>
<th>Collocation</th>
<th>Examples</th>
<th>Mod. Irish</th>
<th>Scot. Gaelic</th>
<th>Hist. data</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>abstract notion</td>
<td>sin, crime, punishment, hardship, thought,</td>
<td>20</td>
<td>20</td>
<td>37</td>
<td>77</td>
</tr>
<tr>
<td></td>
<td>atmosphere</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>drinking, work, fight</td>
<td>28</td>
<td>29</td>
<td>13</td>
<td>70</td>
</tr>
<tr>
<td>atmospheric condition</td>
<td>heat, air</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>colour</td>
<td>purple, yellow</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>container</td>
<td>eyes, pocket, hand</td>
<td>2</td>
<td>4</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>emotion</td>
<td>love, hatred, fear, grief</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>food</td>
<td>lunch, food</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>group of people</td>
<td>host, army</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>layer</td>
<td>coat, cloak, dress, curtain, fabric, type,</td>
<td>23</td>
<td>4</td>
<td>3</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>line</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>living being</td>
<td>&lt;personal name&gt;, he, she, me, you, man,</td>
<td>10</td>
<td>35</td>
<td>5</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>woman, girl, youth</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>dog</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>locomotion</td>
<td>step, walk, tread</td>
<td>2</td>
<td>34</td>
<td>7</td>
<td>43</td>
</tr>
<tr>
<td>machine</td>
<td>gun, ship, engine</td>
<td>6</td>
<td>6</td>
<td>2</td>
<td>14</td>
</tr>
<tr>
<td>money</td>
<td>fine, debt, tax, investment</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>physical object</td>
<td>shoes, furniture, load, shell</td>
<td>31</td>
<td>15</td>
<td>25</td>
<td>71</td>
</tr>
<tr>
<td>physical phenomenon</td>
<td>snow, rain</td>
<td>14</td>
<td>7</td>
<td>9</td>
<td>30</td>
</tr>
<tr>
<td>psyche</td>
<td>heart, mind, head</td>
<td>5</td>
<td>7</td>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td>quality</td>
<td>dyed, sparse</td>
<td>4</td>
<td>0</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>sleep</td>
<td>sleep, nap</td>
<td>4</td>
<td>9</td>
<td>2</td>
<td>15</td>
</tr>
<tr>
<td>sound</td>
<td>tune, voice, shout, music, whistle</td>
<td>6</td>
<td>15</td>
<td>4</td>
<td>25</td>
</tr>
<tr>
<td>substance</td>
<td>fog, liquid, hair</td>
<td>20</td>
<td>4</td>
<td>14</td>
<td>38</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>196</strong></td>
<td><strong>192</strong></td>
<td><strong>127</strong></td>
<td><strong>515</strong></td>
</tr>
</tbody>
</table>
### Physical Qualities in Goideal

#### Appendix II

<table>
<thead>
<tr>
<th>Domain</th>
<th>Meaning</th>
<th>Mod. Irish</th>
<th>Scot. Gaelic</th>
<th>Hist. data</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>tromm t</td>
<td>éromm é</td>
<td>Scot. t</td>
<td>Gaelic é</td>
</tr>
<tr>
<td>Experiential</td>
<td>weight hard to move</td>
<td>13</td>
<td>6 13</td>
<td>6 11</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>amount big in amount</td>
<td>8</td>
<td>0 8 0</td>
<td>0 0 3</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>appearance bulky fine, delicate</td>
<td>4</td>
<td>1 5 4</td>
<td>5 0 3</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>depth deep not deep</td>
<td>4</td>
<td>0 4 8</td>
<td>1 2 0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>density dense, thick thin</td>
<td>15</td>
<td>29 15</td>
<td>4 9 5</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>emptiness full empty</td>
<td>1</td>
<td>1 1 1</td>
<td>2 2 0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>significance grave, serious</td>
<td>6</td>
<td>2 6 6</td>
<td>2 1 6</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>severe-ness harsh, severe</td>
<td>2</td>
<td>0 2 2</td>
<td>4 1 2</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>capacity high-capacity low-capacity</td>
<td>3</td>
<td>0 3 3</td>
<td>1 1 2</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>intensity intense weak, not intense</td>
<td>20</td>
<td>20 20</td>
<td>19 20 19</td>
<td>4 26 20</td>
</tr>
<tr>
<td></td>
<td>quality of sound loud and unpleasant</td>
<td>2 2 2</td>
<td>4 24 2</td>
<td>6 9 5</td>
<td>5 0 9</td>
</tr>
<tr>
<td></td>
<td>quality of movement moving slowly and with difficulty</td>
<td>3 3</td>
<td>8 3</td>
<td>10 8</td>
<td>26 1</td>
</tr>
<tr>
<td></td>
<td>quality of colour dark pale</td>
<td>0</td>
<td>8 0 0</td>
<td>0 0 0</td>
<td>0</td>
</tr>
<tr>
<td>Psycho-physiological</td>
<td>physical impact tiresome unfatiguing</td>
<td>5 5</td>
<td>3 5</td>
<td>6 3</td>
<td>0 0</td>
</tr>
<tr>
<td></td>
<td>quality of food hard to digest</td>
<td>0</td>
<td>2 0 0</td>
<td>2 0 0</td>
<td>0</td>
</tr>
<tr>
<td>Emotional</td>
<td>emotional impact oppressive, hard to bear pleasant, comfortable</td>
<td>6 3</td>
<td>6 3</td>
<td>12 6</td>
<td>3 14</td>
</tr>
<tr>
<td></td>
<td>disposition sad, oppressed cheerful, light-hearted</td>
<td>3 3</td>
<td>5 3</td>
<td>9 5</td>
<td>19 0</td>
</tr>
<tr>
<td>Other</td>
<td>weighed down –</td>
<td>1</td>
<td>– 1 – 5</td>
<td>– 6 – 6</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>pregnant –</td>
<td>1</td>
<td>– 1 – 3</td>
<td>– 5 – 5</td>
<td>–</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>99</td>
<td>98 99</td>
<td>93 87</td>
<td>90</td>
</tr>
</tbody>
</table>