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Changing Definitions of Climate in Polish and English Dictionaries

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Abstract: The present article sets out to examine the dictionary definition entries concerning the concept of climate. Both Polish and English dictionaries are included, as well as historical and contemporary entries. The data is composed of thirteen dictionary entries, published in the last two hundred years. The material is examined qualitatively. The results are presented in the form of a table, where one may find all the aspects of meanings identified in the definitions. A supplement data extracted from the English historical corpus is also provided. The results have revealed that semantic change did occur in both the Polish and the English language. However, the change is more visible in the Polish dictionaries. The subsidiary differences could influence the way the word is employed in certain contexts and thus, differentiate the employment of the same concept in the two languages. Nevertheless, the contemporary definitions are almost identical in both languages, in contrast to the historical ones.

Keywords: climate, dictionary definition, semantic change.

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Introduction

One may observe that, often, various conceptions, although seemingly similar or even synonymous, might differ depending on the language, which is employed. Moreover, the meaning of such conceptions might also be moderated over time. Taking into account the possible discrepancies it may be assumed that the word “climate” has also undergone a semantic change, especially considering the ongoing debate on climate change (Colvin et al. 2020) which is currently present both in English and Polish media.

It is important to state that in the present paper, the semantic change will be investigated as visible in the definitions of the word, as opposed to changes in lexis. The approach, which will be adapted, is the semasiological perspective. The term is explained by Elizabeth Traugott (2017) as an approach focused on the changes in the sense of a particular word, with its form remaining intact or very close to the original. Whilst examining the change, it is necessary to investigate the meaning associated with a given word, for instance, those in dictionary definitions. Furthermore, according to Milroy (1992) and Traugott and Trousdale (2013), the change can only be recognized as such, if there is evidence of its conventionalization, for example in a dictionary entry. Another claim made by Traugott (2017) is that newer meanings tend not to exclude the older ones because of the older generations still employ the original meaning of a given word.

The present paper investigates how and to what extent the meaning of the word “climate” has changed over the last two hundred years in both the Polish and the English language. The word under investigation has not been analyzed according to the variables presented in the paper yet and therefore, it will contribute to the existing knowledge of the subject. What is more, observing two different languages and their separate transformation of definitions may be of value as far as cultural and social conditions are concerned. Furthermore, both the semantic change and discrepancies between Polish and English definitions may influence the way the word is employed in climate change discourse. This, in turn, may affect the conceptual metaphors used to form the said discourse. The comparison aims to discover the possible semantic changes in Polish and English dictionary definitions of the word climate and discrepancies between the descriptions of the word in these two languages.

What is more, observing two different languages and their separate transformation of definitions may be of value as far as cultural and social conditions are concerned. Furthermore, both the semantic change and discrepancies between Polish and English definitions may influence the way the word is employed in climate change discourse. This, in turn, may affect the conceptual metaphors used to form the said discourse. As pointed out by Łozowski (2014: 160), the language people employ, its form, as well as content, is strongly influenced by social and cultural conditioning. The comparison may also highlight the differences between Polish and English cultures, as demonstrated by the conceptualization of the word “climate”.

In order to achieve the aim presented in this section, dictionary entries in both Polish and English will be investigated. The dictionaries include not only those of contemporary language but also historical ones. The study is, however, limited by the amount of material, which the author of the research could access. Certainly, a more thorough analysis may be carried out, given more comprehensive data. Moreover, there exists an asymmetry in terms of corpus tools available in the languages under examination. Polish corpus tools are not as advanced as the English ones.

1. Material

The material investigated in the study is comprised of dictionary definitions of the word climate. There are thirteen entries in total; six of them are derived from Polish dictionaries and seven from English dictionaries. As far as the timeline is concerned, among the Polish dictionaries, there are three historical and three contemporary ones. As for the English dictionaries, there are two historical and five contemporary instances. The choice of particular dictionaries resulted from the availability of the books of the university library.

Before investigating the possible semantic change of the word “climate”, it is worthwhile to examine its etymology. According to the *Concise Oxford Dictionary of English Etymology* (1996: 80), the word derives from “(O)F. climat or late L. clima, climat- - Gr.

Klima, klimat-, f. *kl- as in klnein slope, LEAN. Hence climatic XIX”¹. Another interesting insight into *climate's* etymology was provided by *Etymologiczny słownik języka polskiego* (Bańkowski 2000), “KLIMAT XIX-1, za fr. climat; wcześniej klima <...>, najpierw <...> jako termin geograficzny <...>; łc. clima -atis n *astrol.* ‘stopień nachylenia firmament nieba’, stąd też ‘stan pogody związany z danym położeniem geograficznym, także, <...> ‘jednostka miary powierzchni’ = 314,86 m²; później też med.-anat., por. *clima medium ventris* ‘środkowa część brzucha’ <...>; gr. klima -atos n ‘skłon, zbocze góry’, później też geogr. ‘strona świata, strefa klimatyczna’ [Climate XIX-1, F. climat; before klima <...>, first <...> as a geographical term <...>; L. clima -artis *astrol.* ‘a degree of firmament slope’, that is why ‘a weather condition connected with geographical location, also <...> ‘square measure’ = 314,86 m.; later also med.-anat. *Clima medium ventris* ‘middle part of the stomach’ <...>; Gr. Klima -atos ‘bend, mountainside’, later also geographical term ‘side of the world, climate zone’]2. Other meanings used in the past evoked here are „kraj świata albo dział ziemi od południa na północ takiej szerokości, która pół godziny odmiany we dnie albo w nocy czyni, od równika do bieguna północnego liczono aż 32 takie “klimaty” [a country of the world or a strip of land from south to north of such a width that makes a half hour difference in day or night, from the equator to the north pole there were as many as 32 of such climates] (Bańkowski 2000) and „względem roślin ośm się wyznacza klimatów (1777)” [as for the plants, there are 8 distinguished climates] (Ibid).

As one may notice, the etymology descriptions of the word „climate” in Polish and English are of the same origin. One of the first meanings of the word was slope or lean, which does not occur in any form in the present-day dictionary definitions. Furthermore, there are other meanings, which nowadays are not present in dictionaries, such as square measure or an anatomic term referring to stomach. Finally, yet importantly, the division into thirty-two or eight climates is presently nowhere to be found in the contemporary dictionary definitions. Although the origin of the word might be similar in the Polish and English language, the definitions in various editions of the dictionary may differ. The hypothesis is investigated in the subsequent sections.

1.1 Polish dictionaries definitions

1.1.1 Historical

The earliest dictionary entry containing the word „climate” which was able to find is presented in *Słownik języka polskiego*. According to Linde (1808 or 1807, p. 1017, T. 1, cz. 2: G-L), *klima* (-atu, m., z Greck.) is a “znaczna odmiana powietrza stosowana do położenia różnego mieysc, <...> Względem roślin ośm się wyznacza klimatów <...> Kray świata, albo dział ziemi od południa na północy takiej szerokości, która półgodziny odmiany we dniu albo w nocy nczyni” [a significant change of air

related to the location of different places <...> According to plants one distinguishes eight climates <...> A country of the world or a belt of land from south to north of such width that makes a half an hour difference in day or night].

Another definition of climate may be found in the *Słownik języka polskiego* by Jan Karłowicz (1902: 360): “ogół objawów meteorologicznych, cechujący średni stan atmosfery w danym miejscu na powierzchni ziemi; K. słoneczny <...> fizyczny <...> gorący, umiarkowany, zimny, morski, lądowy, górski, zdrowy, niezdrowy, zabójczy” [general meteorological conditions characterizing an atmospheric condition in a particular place on the surface of the ground; Climate: solar <...> physical <...> hot, moderate, cold, marine, terrestrial, alpine, healthy, unhealthy, lethal].

Finally, whilst examining the word *climate* in the *Słownik polszczyzny XVI wieku* (Tom X 1976), one finds the following description: “KLIMA <...> Jeden z 32 pasów, na które dzielili geografowie powierzchnię ziemi od równika do bieguna, strefa <...> dalekość na niebie albo ziemie <...>; kraj świata, abo dział ziemie od południa na północy takiej szerokości, która pół godziny odmiany we dniu abo w nocy uczyni” [Climate <...> One of the 32 stripes of land from the equator to the pole distinguished by geographers, area <...> distance on the sky or the ground <...>; a country of the world or a division of land from south to north of such a width which makes an half hour difference in day or night].

Having examined these historical definitions, one may observe that most of the historical meanings of the word “climate” resolve around the geographical division of land. However, there are also first signs of change which may be seen in the dictionary from 1902 (Karłowicz), where the concept of climate is extended by including the meaning of general weather conditions, characteristic for a certain area.

1.1.2 Contemporary

As far as contemporary Polish dictionaries are concerned, the term climate is defined in two main ways, namely as a “układ zjawisk pogodowych charakterystycznych dla jakiegoś obszaru, ustalany na podstawie wieloletnich obserwacji” [a system of weather phenomena characteristic for a particular area, defined on the basis of perennial observation] (Żmigrodzki), relating to weather phenomena, and as a “zespół emocji i wrażeń powszechnie odczuwanych w jakimś miejscu lub okolicznościach” [a group of emotions and impressions commonly felt in a certain place or circumstances] (Żmigrodzki), relating to atmosphere. Similarly, PWN provides the following definition of the word *climate* “charakterystyczny dla danego obszaru zespół zjawisk i procesów atmosferycznych” [a group of atmospheric phenomena and processes characteristic for a certain area] (“klimat”) or “nastrój jakiegoś miejsca, środowiska, utworu itp.” [atmosphere of a certain place, environment, a piece of work, etc.] (“klimat”). Similarly, *Słownik Języka Polskiego* (SJP) describes the word “climate” as “związany z danym

obszarem zespół zjawisk i warunków atmosferycznych” [a group of atmospherical phenomena and conditions, associated with a certain area] (“klimat”) and “nastrój panujący w jakimś środowisku, grupie, epoce itp” [atmosphere in a certain environment, group, age, etc.] (“klimat”).

In the definitions quoted above, one may notice that the meanings connected with geographical aspects, visible in the historical definitions are not present. However, the meaning, which submerged in Karłowicz’s dictionary (1902), namely general weather conditions, is acknowledged in all of the contemporary entries. In addition, a new aspect of meaning, relating to the atmosphere in a certain place, is included.

1.2 English dictionaries definitions

1.2.1 Historical

According to the *Webster’s Encyclopedic Unabridged Dictionary of the English Language* (1989: 277), “climate” may be described as “1. the composite or generally prevailing weather conditions of a region, as temperature, air pressure, humidity, precipitation, sunshine, cloudiness, and winds, throughout the year, averaged over a series of years. 2. a region or area characterized by a given climate <...> 3. the prevailing attitudes, standards, or environmental conditions of a group, period, or place <...>”.

Similarly, in *Webster’s Third New International Dictionary* (1986: 422), one may find the following definition of the word “climate”: “1. *in ancient and old geography* a: any of seven astrological belts or zones of the earth each presided over by a planet b : any of the 30 zones (24 between the equator and either polar circle) into which the surface of the earth was divided according to the successive increase of half an hour in the length of the longest day within successive zones 2: a region of the earth esp. considered with reference to its climatic conditions <...> 3 a: the average course or condition of the weather at a particular place over a period of many years as exhibited in absolute extremes, means, of temperature, wind velocity, precipitation, and other weather elements b : the prevailing set of conditions (as of temperature, humidity, or freshness of atmosphere) in any place <...> 4: the prevailing temper, outlook, set of attitudes, or environmental conditions (as in regard to a particular activity or concern) characterizing a group or period”.

In these English historical definitions, there is an aspect of meaning which was not included in Polish historical dictionaries, which is the atmosphere or a set of attitudes but similarly to the Polish ones, they acknowledge the geographical aspect of climate although there is a difference in the number of climates, which divide the earth. These definitions also consider climate as a particular region, which was not present in Polish dictionaries.

1.2.2 Contemporary

According to *Merriam-Webster online dictionary*, climate may be described in three ways, namely as “a region of the earth having specified climatic conditions” (“climate”), “the average course or condition of the weather at a place usually over a period of years as exhibited by temperature, wind velocity, and precipitation” (“climate”) or “the prevailing set of conditions (as of temperature and humidity) indoors” (“climate”) and “the prevailing influence or environmental conditions characterizing a group or period” (“climate”). Other dictionaries, such as *The American Heritage Dictionary of the English Language* (“1. The meteorological conditions, including temperature, precipitation, and wind, which characteristically prevail in a particular region. 2. A region of the earth having particular meteorological conditions: lives in a cold climate. 3. A prevailing condition or set of attitudes in human affairs: a climate of unrest.”), *Cambridge Dictionary* (“the weather conditions that an area usually has; the situation, feelings, and opinions that exist at a particular time”) or *Collins Online Dictionary* (“The climate of a place is the general weather conditions that are typical of it.; You can use climate to refer to the general atmosphere or situation somewhere.”) provided similar definitions. A simplified definition was given by *Macmillan Dictionary*, describing the word climate as “the type of weather that a country or region has” (“climate”), “an area that has a particular type of weather” (“climate”) or “the general situation or attitudes that people have at a particular time” (“climate”).

The contemporary English definitions presented here are almost identical. All of them include general weather conditions and atmosphere in a certain place. A few of the entries mention the climate as a particular area as well, which differentiates them from the contemporary Polish definitions. The aspect of meaning concerning the difference in time, depending on the place on earth has diminished.

1.3 Corpus frequency data

To supplement the study, a table was extracted from the *Corpus of Historical American English*, presenting the frequency of usage of the word “climate” in the last 200 years. Unfortunately, there is no such a tool for the Polish language. There is a historical corpus compiled of Polish texts from XVII and XVIII century, but it does not provide any results for the keywords “klimat” or “klima” [climate], or any other form of the word, which may be an indication in research, however, as negative evidence cannot be provided, the conclusion could not be tested here.

Interestingly, in the English language, the frequency of occurrences of the word climate in the last two hundred years has fluctuated. One might expect that in recent years the topic of climate has been the most prominent than ever; however, the highest normalized frequency may be noticed in the 1830s to 1850s, with the highest peak in 1830s.

A link that may be established between the 1830s and climate might already be concerned with changes in the planet's climate. According to a recently published study (Abram et al. 2016), the first symptoms of climate change could be seen as early as in the 1830s. Subsequently, the frequency has been decreasing gradually, with minor increases, up to the 1970s, when the number of occurrences per million words was at the lowest point. The numbers began to rise since then and reached a value of 39, 4 in the 2000s.

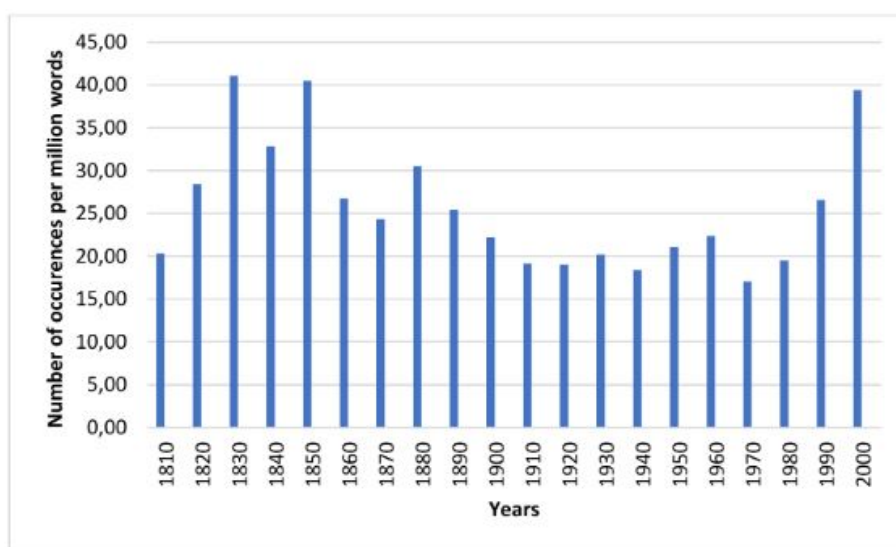


Fig. 1.
Frequency of the word “climate”

While examining the data made available by historical corpora, one may notice that the word climate has been employed quite frequently for at least two hundred years. Unfortunately, there is no such data concerning the usage of the Polish word. However, it would be interesting to investigate, in the future, in what context did the Polish and English words appear. It is possible that new meanings, not included in the dictionaries, could emerge.

2. Results

After a careful examination of thirteen dictionary entries describing the word “climate”, both historical and contemporary, ten categories were established which may be found in the aforementioned definitions. The results are presented in the table below. The titles of the dictionaries are abbreviated using three parts, namely, the abbreviation of the language, the indication of the time it was published (H for historical and C for contemporary), and year of publication (in case of historical dictionaries) or the abbreviation of the name or author of the dictionaries (in contemporary dictionaries).

As one may notice, the dictionary definitions vary in terms of content. The differences may be seen between the entries of Polish and English, as well as, historical and contemporary. As far as Polish historical definitions

are concerned, they are mainly focused on the concept of climate as a geographical construct that is used to denote areas of land. Only one of them, PL-1902, includes the aspect of a set of meteorological conditions observed in a certain area. None of them considers climate as an atmosphere in a certain place.

While analyzing the contemporary Polish definitions of climate, one may observe a different trend. Here, in all three investigated dictionaries one may find definitions describing the concept as general weather conditions in a given place, and, in contrast with historical dictionaries, as an atmosphere in a particular place. More technical aspects, connected with geographical location or scientific divisions, are not included.

Table 1
Aspects of meaning of the word climate

	PL H 1807	PL H 1902	PL H 1976	PL C 2mag	PL C PWN	PL C SJP	ENG H 1986	ENG H 1989	ENG C Merriam	ENG C American Heritage	ENG C Cambridge	ENG C Collins	ENG C McMillan
general weather conditions in a particular place	x		x	x	x	x	x	x	x	x	x	x	x
Atmosphere in a certain place or circumstances			x	x	x	x	x	x	x	x	x	x	x
region or area of a certain climate													
swathe of land (from equator to pole)		x				x	x	x	x				x
zone			x			x							
a country	x		x										
swathe of land (from south to north)	x		x										
significant change of air	x												
division according to plants (8)	x												
division according to solar, physical and intensity	x												

English historical dictionaries, which are analyzed here, are of much lesser extent, as far as definitions of climate are concerned. They both cover the two aspects of climate, which are present in the modern Polish dictionaries, namely general weather conditions and atmosphere in a given place. Furthermore, both of them cover an aspect, which was not visible in any of the analyzed Polish dictionary, which is an area of a certain climate. English dictionary 1986 is also the only of the English ones to mention the swathe of land and zone in its definition of climate.

Finally, yet importantly, the modern English dictionaries are similar in their depiction of the word “climate” to the modern Polish dictionaries. Each of the five modern English climate definitions includes general meteorological conditions, as well as atmosphere in a certain place. What is more, three of these dictionary entries include the third aspect of the meaning of the word “climate”, namely, a region displaying a particular climate.

Summing up, the most frequently included aspect of meaning analyzed in the paper was climate as a set of general weather conditions, mentioned in eleven of thirteen total. Climate as the atmosphere of a particular place was included in ten definitions and climate as a region or area of a certain climate was mentioned in five of them. All the other aspects were only included once (significant change of air, division according to plants,

division according to solar, physical and intensity) or twice (swathe of land – equator to pole, zone, country, a swathe of land – south to north).

3. Discussion

The results presented in the previous section confirm that there exist certain differences between Polish and English definition entries, as well as the historical and contemporary perception of the word “climate”. These differences might be perceived as significant, especially in the case of Polish historical and contemporary definitions.

First, Polish historical definitions were more extended in the sense of several possible meanings attributed to the word “climate”, not only in comparison to modern Polish definitions but English historical and contemporary entries as well. Secondly, all of the contemporary Polish definitions included the first two aspects of meaning exclusively. Thirdly, the English historical definitions were broader than the contemporary English ones, however, not as much as the Polish historical definitions. Finally, yet importantly, the contemporary English entries were of a similar extent to the contemporary Polish definitions, but in a few cases, they included one more aspect of meaning.

In general, the contemporary English definitions were broader than the Polish ones. On the other hand, the Polish historical definitions were wider than the English historical entries. The meaning of the word “climate” in the Polish language has almost completely changed, which is proved by the dictionaries cited. There are almost none overlapping aspects. As far as the English definitions are concerned, the meaning of the word “climate” has become narrower, but it did not change significantly.

Conclusion

The paper investigates how the established meaning of the word “climate” differs in the context of the Polish and the English language, and as well as, examines the semantic change occurring within the word’s meaning in the last two hundred years. The findings indicate that there is a semantic change that may be observed in recent years, where the change is more significant in the Polish dictionaries. However, major changes were not noted in the English definitions. Furthermore, the comparison of Polish and English dictionaries demonstrated a considerable discrepancy in the historical entries and a substantial consistency in the contemporary definitions. Albeit most of the aspects of the modern meaning is overlapping, it may be concluded that there exist differences in the contemporary usage of the word, between the Polish and English language, which would be worth investigating in future research.

Taking into account the different definitions of climate in English and Polish in historical dictionaries, one may conclude that the word was employed in different contexts in the past. As far as the analysis of contemporary dictionaries is concerned, it provides valuable information

on subsidiary discrepancies in the definitions that may suggest a different contemporary usage of the word in the two languages. Although the discrepancies are minor, they may lead to more significant differences as far as the understanding the concept of climate is concerned, and, consequently, influence the formation of the elements of discourse (such as conceptual metaphor or metonymy) in the debate concerning climate change.

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Notes

- 1 In all quotations the original spelling and punctuation is preserved.
- 2 All translations are my own unless indicated otherwise.