Did Knut Hamsun suffer from seasonal variation in mood? A prospective study

Running title: Hamsun and SAD

Maria Gjerpe
Andres Magnusson
Lars F. Larsen
Sigmund Karterud
ABSTRACT

**Background:** Studies on creativity and mental illness and reports on Seasonal Affective Disorder in artists often have methodological weaknesses; in particular they tend to be retrospective. Knut Hamsun was an original writer and Nobel Prize winner in literature. Anecdotes from his life suggest that he suffered from SAD. Prospective methods were used to investigate if Hamsun revealed seasonal variations in mood.

**Methods:** 3318 of Hamsun’s letters are published and stored electronically in a word processing format. Two different approaches were used to examine if seasonal variations in mood were reflected in Hamsun’s letters. The letters were searched for words describing positive and negative mood states, and the occurrence of these words were analysed in relation to seasons. Secondly, two blind raters classified letters as either reflecting elevated- or depressed mood, and the association between mood and seasons was analysed.

**Results:** Seasons had no major effect on the frequency of positive and negative words in Hamsun’s letters. There were more letters with a cheerful or elated mood written in summer than in winter; and more letters reflecting a negative mood written in winter than in summer. However, this was not statistically significant.

**Discussion:** In this study we were able to circumvent several of the methodological problems encountered in previous studies of mental disorders in creative artists. Although our analysis of Hamsun’s letters did strongly indicate that he had marked seasonal variation in mood, we were not able to positively confirm this since the statistical analyses did not reach two-tailed significance.
Maria Gjerpe, M.D.
Faculty of Medicine,
University of Oslo,
Box 1072 Blindern
0316 Oslo,
NORWAY.

mariagjerpe@yahoo.no

Correspondence:

Andres Magnusson, Professor, Dr. Med.
Dept. of Psychiatry
Aker University Hospital
Gaustad sykehus
Sognvannsveien 21
0320, Oslo.
NORWAY.

andres.magnusson@psykiatri.uio.no

Tel: +47 23 03 33 96 / +47 22 92 34 00

Lars Frode Larsen, Dr. Philos.
Gyldendal Forlag,
Sehestedsgt. Pb. 6860, St.Olavs pl,
0130 Oslo,
NORWAY.

# Mailadresse.

Sigmund Karerud, Professor, Dr. Med.
Department of Psychiatry,
Ullevaal University Hospital,
Oslo,
NORWAY.

sigmund.karterud@psykiatri.uio.no
INTRODUCTION

The ideas of the mad genius have existed for over a thousand year, starting already with Aristotle and continued into our own century (1,2). A relationship between creativity and mood disorders has been suggested (3,4,5). However, other studies have not found this association. Waddell reviewed 29 studies and found only a modest association between creativity and mental disorders (6). Fifteen studies found no relationship between creativity and mental disorders, nine found a positive association, and five had unclear findings. Waddell concluded that most of the studies had relatively weak study designs.

In 1984, Rosenthal et.al described winter depression (7), a condition of regularly occurring depression in fall or winter, with a remission the following spring or summer. (8) It has been suggested that artists, writers in particular, often suffer from seasonal variation in mood. (9,10)

Studies on creativity and mental illness often have several methodological weaknesses in particular they tend to be retrospective. (6). This also holds true for reports on seasonal variation (10) and Seasonal Affective Disorder (SAD) in artists.(9)

Knut Hamsun (1859-1952) was a very original and influential Norwegian writer and received the Nobel Prize for Literature in 1920. Hamsun himself claimed that he could be struck by depression, irritability and apathy. (11) Nevertheless he also wrote that he could have moments were he could write 10 pages in a “wink of a moment” while at other times he needed a week to work on one page (12). Several aspects of his life, and his writings, indicate that he might have suffered from SAD. In one of his earliest novels “Son of the sun” Hamsun describes an artist “for whom the winter was always a very difficult time”. In this novel the artist is totally apathetic and depressed during the winter, but becomes very creative and energetic as soon as the first signs of summer emerge. (13).
In his memoirs ,“ On overgrown paths” (14), Hamsun writes:
“Snow and winter is an evil to me. That a season exists that is so perfectly unique in its dreadfulness.
In his memoirs he also describes how his working abilities grows when the season changes:
“ The snow and winter is gone and it is spring. Little and little my desire to work returns…”

According to Hamsun he has “sneaked his crazy mood-states” into some of his novel characters (12)
In the same letter he also claimed that there wasn’t a single person in the whole world that did go through such extreme mood states as him. (12) In a letter to Erik Skram, 26.12.1888 he describes his thirst for light:
“…. I started to love light. I assure you that it was a pure sensual love, a sexual desire. Much light, sunlight, daylight, big lamps, an appalling flash, a fantastic light surrounding me. Miss Janson thought that I had gone mad. I never understood
Nero’s appraisal of Rome’s burning until then. It really went so far that one night I sat the curtains in my room on fire”.

Hamsun lived during the first part of his life in Northern Norway (68°). In his later years, Hamsun moved to the southernmost part of Norway.
Hamsun was constantly travelling and he worked on his novels at various locations in Norway and abroad.

These quotations from Hamsun’s life strongly indicate that this creative genius suffered from SAD.
The indices presented here, which suggest that Hamsun did indeed suffer from SAD, are at a similar level of evidence as that generally presented in descriptions of artists with SAD (8)

However, in Hamsun’s case, it is possible to examine this relationship further; and go beyond anecdotes and retrospective examinations. There are two things that facilitate this. Firstly, SAD is one of the most specific diagnoses in psychiatry. It describes a specific set of symptoms, a specific etiological factor, specific treatments and it also predicts the time of onset and remission of the episodes. SAD is therefore especially amendable for hypothesis testing. Secondly, Hamsun was an arduous writer of letters. During his whole life, Hamsun wrote letters vigorously; more than 3000 of his letters are collected and published. Furthermore, the letters are available in computerised word-processing formats, which greatly facilitate their study.

In the present study, we wanted to examine if seasonal variation in mood could be objectively and prospectively documented in Hamsun’s letters. Towards this end, two different approaches were used. First, the letters were searched for words describing positive and negative mood states, and their occurrence were analysed in relation to seasons. Second; two persons who classified the letters as either reflecting elevated or depressed mood read the blinded material. Each of these letters was then compared to the actual season they were written in.

**MATERIAL AND METHODS.**

The material is 3318 letters that Hamsun wrote during 1879 to 1950. (15)
Some of the letters are business letters; others are of a more personal character.
Gyldendal Norsk Publishing made these letters available as MS Word documents, which has published Hamsun’s letters in 7 volumes.

We used two different methods to search for evidence of seasonal variation in mood in the letters:

*Method 1:* A set of 27 words, describing positive and negative mood states were selected, and searched for in all of Hamsun’s letters. The words were selected by two methods. First, the Profile of Mood States (POMS) (16) was screened and suitable words selected. Second, a random sample of Hamsun’s letters were read to find words that Hamsun himself used to describe his mood. Twenty-seven words were thus selected and searched for. Only words that Hamsun used to describe some negative or positive quality of him or other beings, or those reflecting a mood state, were
included. Thirteen of these words gave meaningful hits; they had been used altogether 72 times. To further analyze the seasonal occurrence of words, we compared Hamsun’s use of positive and negative words when referring to his own mood states vs. others.

Method 2: We extracted 122 letters, written during summer and winter when Hamsun was between 30 and 50 years of age, from the period 1895 to 1916. Letters were extracted every 5th year during this period. The “winter letters” included letters written during 1-15 November and 15. – 31. January. Thus, we avoided Christmas and New Year as a potential confounding factor. The “summer letters” were mostly written in June, however, some were from July.

All information that could indicate in which season the letters were written was blotted out. After being blinded and randomized, the letters were read by three raters, who classified them into one of three categories; reflecting cheerful or elated mood, depressed or lethargic mood or as neutral or not containing any significant information on the writer’s mood state. The letters in this last category were excluded from further analysis. Forty-one informative letters were identified. Any letter that was rated as positive by one rater and negative by some other raters (and vice versa) was excluded from further analysis.

Hamsun traveled much, and wrote his letters at many different locations. We wanted to examine if the traveling might have counteracted- or exaggerated the effect of the seasons on Hamsun’s mood. We therefore examined if we could find any pattern in his traveling.

The association of season and mood in Hamsun’s letters, and his use of positive and negative words in summer and winter, were analyzed by Ki-square test.

RESULTS

Method 1, word count: The seasons in which the positive and negative words were found is shown in figure 1. Clearly, seasons had no major effect on Hamsun’s use of positive and negative words (two sided Ki-square= 1.244;p=. 265).

We tried to analyse this further by examining if the seasonal pattern was more evident when we only included the words where Hamsun described his own state of mind. The result is shown in figure 2. Clearly, in all these analysis, no effect of seasons could be found on Hamsun’s use of positive and negative word.
Method 2; evaluation of letters: Letters written in summer and winter were classified as either reflecting cheerful, elated mood (positive), or depressed, lethargic mood (negative). The relationship with season is shown in fig. 3. There were significantly more positive letters written in summer than in winter, and more letters with negative content written in winter than in summer.

However, this did not reach statistical significance when two-tailed K-square test was used. (two sided K-square with continuity correction = 2.18. Fishers exact test p= 0.11).

According to the letters 122 we examined, Hamsun moved 15 times northwards and 9 times southwards in winter and 5 times northwards and 11 times southwards in summer.

DISCUSSION

A relationship between creativity and mood disorders has been proposed. It has been suggested that several great artists have suffered from SAD. Facts and anecdotes from Hamsuns life suggest that he did suffer from SAD. In this study we tried to test this hypothesis by prospective methods. This method has the advantage of being very objective, but the disadvantage is that Hamsun usually expressed himself in a relatively artistic and complex way and a single positively or negatively charged word used in a letter was often not representative of the feeling or mood of the specific letter. In this study we also tried to blindly assess the mood of Hamsuns letters written in summer and winter. We found a clear tendency that summer letters reflected more often cheerful- or elated mood while the winter letters witnessed more often of a depressed or apathetic mood. This was however not statistically significant when two tailed test was applied. The results of this study were therefore not conclusive. It is unlikely the Hamsun’s travelling pattern did interfere with this, since our findings did not indicate that Hamsun relocated southwards during winter..

The contribution of this study is that it was able to circumvent several of the problems encountered in studies of affective disorders in creative artists (6). The study was not affected by recall bias, it was objective and thus little influenced by the researcher’s ideas or opinions, and there was little or no selection bias. Furthermore it was prospective. But on the other hand it had other weaknesses. Only one person was studied. There was no control, which might be important since we do not know if seasonal variation in mood would be found in any collection of letters, i.e. that it might be a normal phenomenon.

A further issue is that a seasonal variation in mood is not sufficient for a diagnosis of SAD, unless Hamsuns depressive periods had been long and severe enough to fullfil
the criteria for a major depressive episode. Although Hamsun was in psychoanalysis during two periods of his life, we do not have any evidence that he had suffered a major depressive episode.

Knut Hamsun was a prominent, original and influential writer. He was a controversial figure. He was loved and adored by the Norwegian, but the attitude became very strained when Hamsun was accused of sympathizing with the Nazi occupation of Norway during the World War II. When the Nazi regime in Norway capitulated, Hamsun was 86 years old and had suffered a stroke. He was tried in 1945 and found guilty in 1948 by a special court set up after the war. He was incarcerated in a mental hospital and subjected to an intense interrogation and psychiatric evaluation for several months; after which he was involuntarily admitted to a nursing asylum.

To perform a psychiatric autopsy on Hamsun would be a controversial affair. Due to this past history we are reluctant to re-open any further psychiatric analysis on Hamsun other than just to analyse the seasonal pattern of mood in Hamsun’s letters.
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Fig. 1
Fig. 2

![Bar chart showing positive and negative values for summer and winter seasons.](chart.png)
Fig. 3

![Bar chart showing sentiment distribution in summer and winter. Positive sentiment is represented by white bars, negative sentiment by black bars.](image-url)
Figure 1. Seasonal occurrence of positive and negative words.

Figure 2. Hamsun’s use of positive and negative words when referring to his own state of mind.

Figure 3. Association of season and mood in Hamsun’s letters.