

Psych-passives with *at* or *by* in Late Modern English and its historical shift from Early Modern to Present-day English

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1. Introduction

A language is abundant in emotional expressions and they are expressed in a variety of grammatical devices. In English, the passives of *surprise*, *please*, *frighten*, for instance, are used, along with such intransitive verbs as *marvel*, *rejoice*, *fear*, for expressing similar emotional conditions, respectively. Psychological verbs in the passive form (psych-passives), however, seem to be much more utilized in English than other constructions and what we are concerned with in this paper is psych-passives and the agentive prepositions they occur with. Psych-passives have been observed to occur with a preposition other than *by* as an agentive preposition, as in (1).

(1)

a. I saw the company was **pleased with** my behaviour, (Swift, *Gulliver's Travels*, 1726); Sophia was much **pleased with** the beauty of the girl, (Fielding, *Tom Jones*, 1749)

b. I was indeed terribly **surprised at** the sight, and stopped short within my grove, (Defoe, *Robinson Crusoe*, 1719); I was not a little **surprised at** his intimacy with people of the best fashion, (Goldsmith, *The Vicar of the Wakefield*, 1830)

This is the normal usage of the day and the *OED* (1875–1933) gives descriptions about the agentive prepositions occurring with the passives of *please* and *surprise*, as in (2).

(2)

Please 4.a. Passive. To be pleased. Const. *with*.

Surprise 5. Often *pass.*, const. *at* (†*with*) or *inf.*

The standard usages of the late 19th century dictate that when the verb *please* occurs in the passive, it takes *with* as an agentive preposition and the passive of *surprise* accompanies *at* or *with*.

For a couple of centuries, however, psych-passives have been observed to be occurring with *by*, as in (3).

(3)

a. Emma was particularly **pleased by** Harriet's begging to be allowed to decline it. (Austen, *Emma*, 1815); Myrtle Cass, as the office-boy, was so much **pleased by** the applause of her relatives, (Lewis, *Main Street*, 1920); Was it folly in Tom to be so **pleased by** their remembrance of him, at such a time? (Dickens, *Martin Chuzzlewit*, 1843–44)

b. Thorne was **surprised by** a visit from a demure Barchester hardware dealer, (Trollope, *Doctor Thorne*, 1858); Rosamond was **surprised by** the appearance of the maid-servant. (Collins, *The Dead Secret*, 1856); Heyst...was **surprised by** the disclosure. (Conrad, *Victory*, 1915)

Not only such great writers as Austen and Dickens but Trollope or Conrad are also found to have used the psych-passives with the agentive *by*, as early as in the 19th century, contrary to our con-

ventional notions.

I have examined the developmental history of the passives of *surprise* occurring with *at* or *by* as an agentive preposition from the period of Late Modern English to that of Present-day English. It has been shown that *at* was so predominant that it occurred about three times more frequently than *by* in Late Modern English, whereas in Present-day English, *by* has been on the increase and the occurrence rate is such that *by* has been catching up or even surpassing *at*.¹⁾

In this article I will show how the passives of psych-verbs synonymous to *surprise* occur with *at* or *by*, during the Late Modern English period, specifically during the 18th and 19th centuries. In analyzing data, I will show some characteristics of the verbs as well as those of the writers. I will also examine the psych-passives during the periods of Early Modern English and Present-day English and compare the results with that of Late Modern English. The comparison will reveal the developmental history of the agentive prepositions with psych-passives, that is, the dominance of *by* over *at* or *with*, which were prevalent in earlier times. Finally, I will argue that this prepositional shift of psych-passives may have been the same shift that happened to the passives of English in general, where an agentive *by*-phrase replaced such other prepositions as *of*, *from*, *through*, *at*, *with*, etc.

¹⁾ Refer to Taketazu (1999: 199, 207–208). The reason that I focused on the verb *surprise* on this particular study is because *surprise* seems to be one of the most typical psych-verbs. In fact, it is the most frequently used psych-verb among other synonymous verbs. It was my assumption that to examine the behaviors of a typical psych-verb will help reveal the behaviors of psych-verbs in general.

2. Synonymous psych-verbs

The verbs synonymous to *surprise* which are to be treated in this article are: *alarm*, *amaze*, *appall*, *astonish*, *astound*, *baffle*, *bewilder*, *dismay*, *perplex*, *shock*, *startle* and *stun*. The fact that these verbs are synonymous can be shown by the circular or roundabout definitions of these verbs: *amaze*, for instance, is described as “surprise (someone) greatly; fill with astonishment, *astonish* as “surprise or greatly surprise”, or *surprise* as “cause (someone) to feel mild astonishment or shock” and so on.

Their synonymity can also be illustrated by the parallel use of two synonymous verbs in a sentence, shown in (4).

(4)

Then turned **bewildered** and **amazed**, (Scott, *The Lady of the Lake*); **Astonished** and **shocked** at so unlover-like a speech, (Austen, *Sense and Sensibility*); Both the sisters seemed struck: not **shocked** or **appalled**; (Ch. Brontë, *Jane Eyre*); They were not however the less **astonished** and **dismayed**... (Shelley, *The Last Man*); Poor Mrs. Edmonstone was **alarmed** and **perplexed** beyond measure; (Yonge, *The Heir of Redclyffe*); he was **startled** and **bewildered**. (Kipling, *Soldiers Three*); “Thy acts are like mercy,” said Hester, **bewildered** and **appalled**. (Hawthorne, *The Scarlet Letter*); I could not but feel **amazed** and **shocked** at his indifference; (Melville, *Redburn*); if I were not **stunned** and **alarmed** by what I hear of her wildness, (Simms, *As Good As a Comedy*); etc.

Synonymous as they may be, these verbs may have some slightly

different shades of meaning from each other as in (5).

(5)

The fat butler seemed **astonished**, not to say **shocked**, at this violation of etiquette; (Disraeli, *The Young Duke*); Malmayns, who appeared much **surprised**, and not a little **alarmed**, at the sight of so many persons. (Ainsworth, *Old Saint Paul's*); Those who...were **astonished**, and even **startled**, to perceive how her beauty shone out, (Hawthorne, *The Scarlet Letter*); He was **amazed**, and a little **startled**, (Collins, *The Queen of Hearts*); He was **perplexed** and somewhat **astonished** by this unexpected proposition... (Dreiser, *The Financier*); etc.

The writers, with these differences in mind, may have used them in an appropriate way in a suitable context. Basically, however, they seem to have such identical or similar meanings as to be included as a group of synonyms.

3. Corpus and the writers

3.1 Four Corpora

Four computer corpora were mainly used to collect data: The Victorian Literary Studies Archives (VLSA) and the Modern English Collection (MEC) for late Modern English. For Present-day English, the British National Corpus (BNC) and the Corpus of Contemporary American English (COCA) are utilized. We also made use of concordances for the collection and confirmation of the data for Early Modern English.

The VLSA is a corpus created at Nagoya University, which

contains more than a hundred British writers of the Victorian period as well as American writers of the same period. It also contains writers of the Early Modern English period such as Spenser, Shakespeare, Defoe, Swift and so forth.

The MEC is a corpus created at the University of Virginia and it is assumed to contain 50 million words of British and American English from the 16th to the early 20th century. Unfortunately, this corpus, which was used in my previous research (Taketazu, 2015) is no longer available, so the VLSA was used as the main corpus, with the MEC used to supplement any data that was unavailable from the VLSA.

Compared to the MEC, the VLSA has a larger number of British writers, generally with more works of each writer,²⁾ which are not in the MEC. On the other hand, the MEC has more American writers and works, some of which are not contained in the VLSA.³⁾ The data from these corpora is, so to speak, a hybrid data but this would not be a detriment to our purpose of obtaining the overall ratio of *at* and *by* occurring with psych-passives during the periods we are concerned with.

The BNC is a corpus of Present-day British English. It contains 100 million words of spoken and written English: 90% percent are written texts and 10 % are spoken texts.⁴⁾

²⁾ The only exception is Samuel Johnson and his data here was obtained from the MEC, which contains *the Ramblers*.

³⁾ Sedgwick, Child, Bird, Willis, Simms, Curtis, Taylor and Cummins are such writers. So their data in this paper are those obtained from the MEC when I was writing my previous paper (Taketazu, 2015)

⁴⁾ The corpus I used is Shogakkans' BNC, which is practically the same corpus as the original BNC except for a very small number of citations which are excluded because of copyright.

The COCA is a corpus created at Brigham Young University and contains approximately 450 million words of Present-day American English from 1990 to 2012. The texts include fictions, magazines, newspapers, academic journals and spoken texts.

First, the data was collected from the VLSA and, with the data already obtained from the MEC, the usages of the famous authors and popular writers of the 18th and 19th centuries were examined. The obtained results were compared with the outcome of Early Modern and Present-day English.

3.2 British and American writers

I have selected some thirty-plus writers each from Britain and America (thirty-four from Britain, thirty-two from America). Writers of Britain are⁵⁾: Henry Fielding (1707–54), Samuel Johnson (1709–84), Oliver Goldsmith (1728–74), Walter Scott (1771–1832), Jane Austen (1775–1817), Charles Lamb (1775–1834), Thomas Carlyle (1795–1881), Mary Shelly (1797–1851), Benjamin Disraeli (1804–81), W. H. Ainsworth (1805–82), Charles Darwin (1809–82), Thomas Peckett Prest (1810–59), Elizabeth Gaskell (1810–65), W. M. Thackeray (1811–63), Anthony Trollope (1815–82), Charlotte Brontë (1816–55), Emily Brontë (1818–48), George Eliot (1819–80), C. M. Yonge (1823–1901), Wilkie Collins (1824–89),⁶⁾ Lewis Carroll (1832–98),

⁵⁾ Dickens is not included here because he was treated in my previous article (Taketazu, 2015). In the article, his data was compared with those of his contemporaries such as are treated in this article.

⁶⁾ The number of Collins' works contained in the VLSA is so large that the yielded data could disrupt the whole statistics. In fact, the total number of instances is 278, compared to the second largest Gaskell's data is 151, so I have decided to use twenty of his works from *Antonia* to *The Black Robe*. The size of the data (the total number) thus obtained is 175 instances, close to Gaskell's data. This reducing of the data hardly seems to change the rate of *at* and *by*.

Samuel Butler (1835–1902), Thomas Hardy (1840–1928), Andrew Lang (1844–1912), Robert Louis Stevenson (1850–94), Oscar Wilde (1854–1900), George Bernard Shaw (1856–1950), George Gissing (1857–1903), Joseph Conrad (1857–1924), Arthur Conan Doyle (1859–1930), Rudyard Kipling (1865–1936), H. G. Wells (1866–1946), G. K. Chesterton (1874–1936) and W. S. Maughm (1874–1965).

American writers are George Washington (1732–99), Washington Irving (1783–1859), James Fenimore Cooper (1789–1851), Catharine Sedgwick (1789–1867), William H. Prescott (1796–1859), Maria Lydia Child (1802–80), Ralph Waldo Emerson (1803–82), Nathaniel Hawthorne (1804–64), Robert Montgomery Bird (1806–54), Nathaniel Parker Willis (1806–67), William Gilmore Simms (1806–70), Henry Wadsworth Longfellow (1807–82), Edgar Allan Poe (1809–49), Harriet Beecher Stowe (1811–96), Henry David Thoreau (1817–62), Herman Melville (1819–91), George William Curtis (1824–92), Bayard Taylor (1825–78), Maria S. Cummins (1827–66), Luisa May Alcott (1832–88), Alger Horatio (1832–99), Mark Twain (1835–1910), W. D. Howells (1837–1920), Henry James (1843–1916), Edith Wharton (1862–1937), Frank Norris (1870–1902), Willa Cather (1873–1947), Jack London (1876–1916), Sherwood Anderson (1876–1941) and Scott Fitzgerald (1896–1940).

These writers were selected because they are famous and popular writers in the literary history of the 18th and 19th centuries and many of them are prolific enough to provide sufficient data and meaningful results. Some of the writers produced their works in the early 20th century, but their acquisitions of the English language are thought to have taken place in the late 19th century and therefore they are assumed to have been using 19th century English, so they

are also included.

The data of just over thirty writers from each country may not be representative of the linguistic situations of the period but they are assumed to be a close representation of them since the results (that is, the ratio of *at* and *by*) of Britain and America have proved to be quite similar to each other.

A separate consideration is given to British writers and their American counterparts because it may be possible that the two countries have different linguistic tendencies with their own characteristics. It has been claimed that America has preserved older features of English that Britain has lost. Markwardt (1958: 59–80) describes it as the “colonial lag”. Nevalainen (2006: 146) seems to be in agreement to this idea and says that “this conservatism is called colonial lag”. So it may be expected that American writers show older tendency in their choice of preposition, but it has proved that the results from the two countries show quite a similarity in the ratio of *at* and *by*.

4. Late Modern English

4.1 Some collected examples

Let us now provide some examples of psych-passives with *at* or *by* that we have gathered from the VLSA and the MEC. This is a list of samples and they are meant to be presented in such a way as to represent a general tendency of each verb. ‘Br’ at the head of the examples stands for Britain, ‘Am’ for America.

There are some examples where other prepositions such as *with* or *about* are used with the passives of these verbs, but only *at*

and *by* are taken into consideration. That is because *at* and *by* are the most predominant prepositions and *with* or *about* seem to be older prepositions to show agency and in Present-day English, they are scarcely used with these psych-passives. The occurrences of *with* or *about* may affect the occurrences of *at* or *by* to some extent, but it only seems to be a negligible degree.

(6)

(a) alarm

Br: Somewhat **alarmed at** this account, (Scott, *The Heart of Midlothian*); Dobbin said, rather **alarmed at** the fury of the old man, (Thackeray, *Vanity Fair*); She was so **alarmed at** having said this, (Yonge, *The Heir of Redclyffe*); Rowena, somewhat **alarmed by** the mention of outlaws in force, (Scott, *Ivanhoe*); when they were **alarmed by** the sudden and furious ringing of a bell overhead. (Ainsworth, *Auriol*); Mr. Donne...was too much **alarmed by** what he heard of the fever... (Gaskell, *Ruth*); Madame will be **alarmed by** your absence. (Coltins, *No Thoroughfare*); etc.

Am: I am...**alarmed at** dangerous spirit which has appeared in the troops... (Washington, *Writings*, vol.15); ...said I, more and more **alarmed at** his wildness, (Melville, *Redburn*); **Alarmed by** the rapid approach of the storm, (Sedgwick, *Hope Leslie*); I was a little **alarmed by** his energy. (Melville, *Moby Dick*); etc.

(b) amaze

Br: She was quite **amazed at** her own discomposure; (Austen, *Pride and Prejudice*); "Are they foreigners?" I inquired, **amazed at** hearing the French language. (Charlotte Brontë, *Jane Eyre*); Grace was **amazed**

at the mildness of the passion... (Hardy, *The Woodlanders*); Jack was **amazed at** the outburst of wrath... (Gissing, *Thyrza*); I am **amazed**, sir, **by** your range of information, (Collins, *No Name*); They listened and assented, **amazed by** the wonderful simplicity... (Conrad, *The Almayer's Folly*); etc.

Am: you are not **amazed at** your calamity; (Sedgwick, *Hope Leslie*); He was **amazed also at** her vehemence of emotion. (Sinclair, *King Coal*); leaving the whole party of Christian spectators **amazed** and rebuked **by** this lesson... (Irving, *Captain Bonneville*); he...was...much **amazed by** the contradictions of voice, face, manner, (Alcott, *Little Women*); etc.

(c) appall

Br: Lord Kirkaldy...was **appalled at** my blunders. (Yonge, *Nuttie's Father*); he was **appalled at** the thought of bidding her... (Gissing, *The Whirlpool*); Mr. Thumble started back, **appalled by** the energy of the words used to him. (Trollope, *The Last Chronicle of Barset*); etc.

Am: **Appalled at** the dreadful fate that menaced me, I clutched frantically at the only large root... (Melville, *Typee*); He was **appalled at** the vast edifice of etiquette, (London, *Martin Eden*); How often was he **appalled by** some shrub covered with snow, (Irving, *The Sketch Book*); He was **appalled by** the selfishness he encountered, (London, *The Iron Heel*); etc.

(d) astonish

Br: "I am equally **astonished at** the goodness of your heart, and the quickness of your understanding." (Fielding, *Tom Jones*); "I am **astonished at** his intimacy with Mr. Bingley!" (Austen, *Pride and Prejudice*); I am so **astonished at** what you tell me that I forget myself. (Gissing,

Workers in the Dawn); I am more often **astonished by** the prudence of girls than **by** their recklessness. (Trollope, *The Belton Estate*); etc.

Am: The rest of the savages...seemed grieved and **astonished at** the earnestness of my solicitations. (Melville, *Typee*); Mabel was **astonished at** his indifference to many of her favorites, (Cummins, *Mabel Vaughan*); Full-grown people...were often **astonished at** the wit and wisdom of his decisions. (Twain, *The Prince and the Pauper*); etc.

(e) astound

Br: he was **astounded...at** such an indignity. (Thackeray, *Pendennis*); the other servants perfectly **astounded at** his coolness. (Ainsworth, *Boscobel*); they were all **astounded by** the news that... (Trollope, *The Way We Live Now*); The butler was **astounded by** the manner of this advice, (Conrad, *Chance*); etc.

Am: Even Ernest was **astounded at** the quickness... (London, *The Iron Heel*); Though **astounded...by** the uproar, (Cooper, *The Last of the Mohicans*); etc.

(f) baffle

Br: I don't mean to be **baffled by** a little stiffness on your part; (Brontë, *Jane Eyre*); she was **baffled by** the same hopeless confusion of ideas. (Collins, *The New Magdalen*); having been somehow **baffled by** this woman's disparagement of this reputation he had obtained... (Conrad, *Nostromo*); etc.

Am: Then he checked himself, **baffled by** the massive ignorance... (Glasgow, *The Voice of the People*); He was like and yet unlike her father. She was **baffled by him**. (Anderson, *Poor White*); etc.

(g) bewilder

Br: There were moments when I was **bewildered by** the terror he inspired. (Ch. Brontë, *Jane Eyre*); Silas, **bewildered by** the changes thirty years had brought over his native place had stopped several persons... (Eliot, *Silas Marner*); He...was **bewildered by** the height of his wife's ambition. (Trollope, *Framley Parsonage*); poor Ethel was **bewildered by** a multiplicity of teachers, (Thackeray, *The Newcomes*); etc.

Am: Cora and Alice had stood trembling and **bewildered by** this unexpected desertion; (Cooper, *The Last of the Mohicans*); The young man was **bewildered by** his rage and disappointment. (Simms, *Beauchampe*); She...clung to her friend as if she was a little **bewildered by** the sudden news. (Alcott, *Little Women*); etc.

(h) dismay

Br: I was weakly **dismayed at** the ignorance, (Ch. Brontë, *Jane Eyre*); We are rather **dismayed at** their bringing two servants with them. (Gaskell, *Cranford*); Molly was rather **dismayed by** the offers of the maid... (Gaskell, *Wives and Daughters*); I was...so **dismayed by** the first waking impressions of my dream, (Collins, *The Woman in White*); etc.

Am: and no way **dismayed at** the character of the enemy (Irving, *History of New York*); He was astonished and **dismayed at** his own emotion. (Stowe, *Agnes of Sorrento*); I had been much **dismayed by** their menaces. (Irving, *Tales of a Traveller*); etc.

(i) perplex

Br: "I must say I am often perplexed at the differences..." (Disraeli, *Lothair*); He was often **perplexed by** the problems of life... (Gaskell, *Ruth*);

She was the only child of old Admiral Greystock, who...was much **perplexed by** the possession of a daughter. (Trollope, *The Eustace Diamonds*); etc.

Am: I am extremely **perplexed...at** the uneasiness... (Washington, *Writings*, Vol. 9); he was **perplexed by** its prolonged secrecy, (Sedgwick, *Married or Single?*); the young Dinks was **perplexed by** a singular feeling of happiness. (Curtis, *Trumps*); etc.

(j) shock

Br: I was greatly **shocked at** the barbarity of the letter... (Fielding, *Amelia*); I suppose you are **shocked at** my character. (Scott, *The Heart of Midlothian*); the Countess was **shocked at** the familiarity of (Thackeray, *Vanity Fair*); A stranger is **shocked by** a tone of defiance in every voice, (Gaskell, *The Life of Charlotte Brontë*); He was a little **shocked ...by** the language he had heard... (Trollope, *The Three Clerks*); etc.

Am: one of her aunts, **shocked at** the omission of...decorum... (Sedgwick, *A New England Tale*); She **looked shocked at** such unchristian ignorance. (Wharton, *The Age of Innocence*); Fresh from his revolutionists, he was **shocked by** the intellectual stupidity of the master class. (London, *The Iron Heel*);

(k) startle

Br: He was...**startled at** his own audacity, (Gissing, *A Life's Morning*); Celia was really **startled at** the suspicion which had darted into her mind. (Eliot, *Middlemarch*); Doubtless you are **startled by** the suddenness of this discovery. (Eliot, *Middlemarch*); The major was **startled by** his eloquence, (Trollope, *The Last Chronicle of Barset*); She...was horribly **startled by** the darkness. (Conrad, *Tales of Unrest*); etc.

Am: But Pearl, not a whit **startled at** her mother's threats... (Hawthorne, *The Scarlet Letter*); Robinson Crusoe could not have been more **startled at** the footprint in the sand than we were at this unwelcome discovery. (Melville, *Typee*); Isabella was...**startled by** a corresponding mental resemblance, (Sedgwick, *The Linwoods*); I was suddenly **startled by** a scream, (Melville, *Typee*); she was **startled by** a sharp and angry exclamation from Nan, (Cummins, *The Lamplighter*); etc.

(l) stun

Br: She were just **stunned by** finding her mother was dying... (Gaskell, *Sylvia's Lovers*); he was partly **stunned by** the discovery he had made ... (Conrad, *Lord Jim*); I was so **stunned by** this sudden shock that for a time I must have nearly lost my reason. (Doyle, *The Lost World*); etc.

Am: The poor youth was actually **stunned**, not **by** what was said to him, but **by** the sudden consciousness of his own vehemence. (Simms, *Beauchampe*); But she was **stunned by** her own grief, (Curtis, *Trumps*); I was for the moment stunned by what they disclosed to me. (London, *The Sea-Wolf*); etc.

4.2 Statistics

The collected data on each verb and each writer can be arranged as in the following tables. The tables show the occurrences of each author's use of psych-passive with *at* or *by*.⁷⁾

⁷⁾ Although sufficient attention was paid in collecting data, some of the figures may show minor variation because there are examples with ambiguous meanings whether they are psychological or pseudo-psychological. There may also be some human oversights in dealing with a large amount of data. This will be the case with the figures on Table 6 in 7.1, where the division (by 4.5) may naturally lead to approximate numbers. Nevertheless, it does not seem to affect the general ratio between *at* and *by*.

Table 1 British writers' psych-passives and at or by

Author	Year of Birth & Death	alarm		amaze		appall		astonish		astound		baffle		bewilder		dismay		perplex		shock		startle		stun		Total			
		at	by	at	by	at	by	at	by	at	by	at	by	at	by	at	by	at	by	at	by	at	by	at	by	at	by		
Fielding	1707-1754	6	4	4	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	11	0	1	0	0	1	32	5		
Johnson	1709-1784	2	3	1	2	0	0	0	0	0	0	0	0	0	2	0	0	0	3	2	1	0	0	0	0	5	11		
Goldsmith	1728-1774	1	1	5	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	1		
Scott	1771-1832	10	6	0	0	3	11	1	1	0	0	0	0	0	0	0	0	0	0	4	3	1	3	0	4	27	17		
Austen	1775-1817	2	4	8	0	1	0	12	3	0	0	0	0	0	1	0	1	0	0	4	3	2	5	0	0	29	17		
Lamb	1775-1834	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0	0	11	0		
Carlyle	1795-1881	0	0	2	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	1	0	0	0	0	0	5	2		
Shelley	1797-1851	1	2	0	0	0	0	1	0	0	0	0	0	0	2	0	0	0	0	4	2	0	0	0	0	3	6		
Disraeli	1806-1881	12	5	2	0	0	2	11	1	3	4	0	0	0	0	1	0	0	5	6	4	2	1	3	0	0	38	24	
Ainsworth	1806-1882	12	37	1	0	2	5	7	3	3	1	0	0	0	0	1	0	0	1	4	4	2	14	0	0	31	69		
Darwin	1809-1882	4	0	0	0	0	0	7	1	0	0	0	0	0	0	0	0	0	2	0	1	0	3	1	0	0	14	5	
Prest	1810-1859	3	3	8	0	1	0	3	1	0	0	1	0	3	0	0	0	0	0	2	0	1	2	0	0	3	18	13	
Gaskell	1810-1865	12	9	1	0	0	0	10	1	0	2	0	0	1	4	5	6	3	13	20	6	14	32	0	12	66	85		
Thackeray	1811-1863	10	3	18	1	0	0	13	2	4	0	0	0	1	8	2	1	1	1	9	5	0	2	0	0	58	24		
Trollope	1815-1882	1	2	3	1	0	3	17	13	2	8	0	0	0	10	1	11	0	5	7	9	2	13	0	4	33	79		
Ch. Brontë	1818-1855	1	0	4	0	0	0	2	0	0	0	0	0	0	3	0	1	3	0	0	0	12	3	2	4	0	1	20	12
E. Brontë	1818-1848	2	0	2	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	1	10	1	
Eliot	1819-1880	8	5	6	0	1	0	6	0	0	0	0	0	0	2	0	0	0	0	11	2	3	19	0	0	35	28		
Yonge	1823-1901	13	3	11	0	4	1	4	1	1	0	0	0	1	2	8	1	2	0	4	12	7	1	56	0	4	57	118	
Collins	1824-1884	7	20	12	5	0	0	22	3	2	0	0	0	3	0	14	1	2	0	12	6	0	1	0	0	6	4	3	
Carroll	1832-1898	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	0	
Butler	1835-1902	2	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	6	4	
Hardy	1840-1928	1	1	12	0	2	7	0	4	0	4	0	1	2	5	1	2	3	3	6	0	1	11	0	0	39	25		
Lang	1844-1912	0	2	3	0	1	0	19	2	0	0	0	0	1	0	2	0	0	0	2	2	0	7	0	2	13	20		
Stevenson	1850-1894	0	2	3	0	0	2	8	1	1	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	26	8	
Wilde	1854-1900	0	1	5	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	6	2	2	
Shaw	1856-1950	1	1	6	1	0	0	3	0	0	1	0	3	0	0	0	0	0	0	2	0	0	3	0	0	12	9		
Gissing	1857-1903	6	11	8	1	3	1	27	2	0	0	0	0	0	1	1	0	2	8	2	7	18	0	3	60	44			
Conrad	1857-1924	4	10	13	5	3	6	13	2	4	5	0	4	1	5	2	1	0	3	6	10	4	26	0	4	50	81		
Doyle	1859-1930	3	0	6	0	1	0	7	2	2	1	0	3	0	1	0	1	0	4	4	3	6	0	6	26	23	5		
Kipling	1865-1936	0	0	7	0	0	0	2	0	1	0	0	0	2	0	1	0	0	2	6	0	1	3	0	0	20	5		
H.G.Wells	1866-1946	1	2	2	0	0	0	6	0	0	0	0	0	0	0	1	0	0	2	1	2	0	7	0	0	11	13		
Chesterton	1874-1936	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	6	3	0	
Maugham	1874-1965	0	0	0	0	1	0	4	0	0	0	0	0	0	0	0	0	0	0	0	1	5	4	1	0	10	6	3	
Total		127	138	157	16	21	26	248	39	29	22	0	22	9	71	28	29	13	52	161	74	63	263	0	50	856	802		

Table 2 American writers' psych-passives and *at* or *by*

Author	Year of Birth & Death	alarm		amaze		appall		astonish		astound		baffle		bewilder		dismay		perplex		shock		startle		stun		Total			
		at	by	at	by	at	by	at	by	at	by	at	by	at	by	at	by	at	by	at	by	at	by	at	by	at	by		
Washington	1732–1799	24	6	3	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	4	1	0	0	0	0	0	38	10	
Irving	1783–1859	1	3	0	1	0	0	1	4	0	1	0	0	0	2	2	2	0	5	1	0	3	7	0	0	12	22		
Cooper	1789–1851	4	8	4	0	4	0	9	1	1	5	0	2	0	0	3	0	0	1	1	1	10	10	0	0	33	31		
Sedgwick	1789–1867	8	15	9	0	1	2	4	0	2	0	4	0	4	0	3	1	0	0	5	8	5	1	35	0	0	32	71	
Prescott	1796–1859	3	3	2	0	0	0	0	7	1	0	2	0	1	0	2	1	1	0	2	3	0	0	4	0	0	16	16	
Child	1802–1880	1	2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	1	0	0	1	0	0	2	6		
Emerson	1803–1882	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	5	6	17	0	0	3	3
Hawthorne	1804–1864	0	1	0	0	0	0	6	2	0	1	0	0	1	4	0	0	1	1	2	5	6	17	0	0	17	31		
Bird	1806–1854	2	1	3	0	0	0	3	0	1	0	0	1	0	0	1	0	0	1	4	2	3	0	0	0	17	5		
Willis	1806–1867	1	0	0	0	0	1	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	7	3	
Simms	1806–1870	2	1	0	0	0	1	0	1	0	1	0	2	0	3	0	0	0	0	2	0	1	5	0	0	5	7		
Longfellow	1807–1882	1	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	5	2		
Poe	1809–1849	4	2	2	0	0	1	12	1	0	1	0	0	0	1	0	1	1	0	2	3	1	0	1	1	0	16	7	
Stowe	1811–1896	2	0	1	0	0	1	6	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	8	
Thoreau	1817–1862	1	1	1	0	0	0	3	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	5	11		
Melville	1819–1891	6	2	4	1	1	0	10	0	0	0	0	0	0	0	0	0	0	0	1	3	1	2	11	0	0	26	15	
Curtis	1824–1892	4	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0	0	2	1	0	0	3	0	0	1	5	9	
Taylor	1825–1875	1	0	1	0	0	0	2	0	0	0	0	0	0	6	0	0	0	0	0	3	0	3	2	0	1	10	9	
Cummings	1827–1866	1	1	2	0	2	0	16	0	0	0	0	0	0	0	0	0	0	0	0	8	1	0	16	0	0	29	18	
Alcott	1832–1888	5	1	3	2	1	0	1	1	0	0	0	0	4	2	1	0	0	2	1	0	1	2	0	0	0	14	13	
Horatio	1832–1899	5	1	3	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	1	3	1	3	3	0	0	18	6	
Twain	1835–1910	0	1	5	0	3	0	11	0	1	0	0	0	0	2	0	0	0	0	2	1	2	4	0	0	0	24	8	
Howells	1837–1920	1	2	3	0	0	1	0	0	0	0	0	0	1	2	1	0	0	0	2	0	1	1	0	2	10	8		
H. James	1843–1916	1	0	2	0	2	0	3	0	0	0	0	0	0	3	1	0	0	1	5	4	0	4	0	0	14	12		
Wharton	1862–1937	2	1	1	0	0	1	1	0	0	0	0	0	0	0	2	1	1	0	0	3	0	1	3	0	1	9	9	
Norris	1870–1902	0	0	0	0	0	1	0	0	0	0	0	0	0	3	3	0	0	0	2	0	1	0	1	0	2	4	8	
Dreiser	1871–1945	0	0	1	1	0	5	2	1	0	0	0	0	0	0	0	0	0	1	0	5	0	3	0	0	8	12		
Cather	1873–1947	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	7	3		
Glasgow	1874–1945	0	1	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	1	0	1	4	0	0	5	6	
London	1876–1916	0	2	4	1	9	6	1	0	4	0	0	0	0	4	0	0	0	0	0	6	0	6	0	2	18	30		
Anderson	1876–1941	1	1	1	2	0	1	1	0	0	0	0	0	1	0	0	0	0	1	0	3	1	0	0	1	0	4	10	
Fitzgerald	1896–1940	1	1	0	0	1	3	1	0	0	0	0	0	0	0	1	1	0	0	0	3	1	2	2	0	0	9	8	
Total		85	58	58	8	27	17	131	10	12	13	0	13	5	51	13	7	3	36	66	37	45	162	1	15	446	427		

4.3 Some thoughts on the statistics

Before getting into the analysis of the data, some comments must be made on the role that statistics play in a philological study. The ideal way to collect data for any philological analysis would be to collect the totality of sentences or utterances, written or spoken, in the whole society. But it would be impossible to do so. The next best thing we can do is to collect a certain kind of and certain amount of data within a certain microcosmic world, within a certain space of time. In this study, the microcosm would be literary circles, Britain and America, during the 18th and 19th centuries. The data collected in this way would be an approximate representation of the whole linguistic picture of that society within that period of time.

Statistics thus obtained may not be an exact representation of a linguistic phenomenon in question, but can be used to show a general tendency of that particular linguistic phenomenon. The figures from each verb or each author on the tables above show a great deal of variation in the occurrence of *at* and *by*. It is difficult to capture the characteristics of the occurrence behaviors of prepositions from these figures.

To solve this shortcoming would be to add up the figures from each verb or each author, so that some bigger picture could be seen. Simple adding of the figures, however, may not represent a real linguistic situation. Nevertheless, it can be expected that some tendencies can be clearly seen. Therefore, the final total may be considered to be a condensed picture in a sort of a microcosmic society, in which this particular linguistic phenomenon has occurred.

5. Analysis of the Data

5.1 Some characteristics of the verbs

Some characteristics of the verbs can be observed from the tables. The most frequently used verb is *startle* (*surprise* aside), followed by *astonish*, *alarm*, *shock*, *amaze* and so on in the order of frequency of occurrence. The verbs may be classified into three groups depending on which preposition they tend to occur with. The three groups are: (i) verbs which prefer to occur with *at*, (ii) verbs which tend to take *by* and (iii) verbs which accompany *at* and *by* more or less in similar numbers.

Amaze and *astonish* have a very strong tendency to occur with *at*, with a small number of occurrences with *by*. *Shock* occurs with *at* more than *by*, but not to the extent of *amaze* and *astonish*. *Bewilder*, *perplex* and *startle*, on the other hand, show the opposite tendency, accompanying mainly *by*. *Baffle* and *stun* virtually occur only with *by*.

The verbs of the third group *alarm*, *appall*, *astound* and *dismay* show more or less similar numbers of the occurrences of *at* and *by*. There is a fluctuation of occurrence, however, between the two countries. *Alarm*, for instance, tends to occur with *at* more than *by* in America, while *by* is more prevalent than *at* in Britain. This kind of discrepancy is also true of other verbs as well.

5.2 Some characteristics about the writers

The writers also seem to show unique characteristics. It may be possible to make the following observations about the writers depending on their preference for the preposition, whether *at* or *by*.

Some writers seem to prefer to use *at*, while others tend to use *by* and some others use both *at* and *by* more or less similarly.

In Britain, the writers who seem to prefer to use *at* are Fielding, Goldsmith, Scot, Austen, Thackeray, Yonge, Lang, Gissing and Kipling. The writers who use *by* more than *at* are Johnson, Gaskell, Trollope, Collins and Conrad. In America the writers who like to use *at* more than *by* are Washington, Poe, Stowe, Melville, Cummins, Horatio and Twain. Those who like to use *by* are Prescott, Irving, Cooper, Hawthorne, Simms, Sedgwick, Curtis and London.

It may be said that the writers of the first group are more or less conservative writers, preferring to use the 'older' preposition *at*, whereas the writers of the latter group are rather progressive and free from traditional norm by adopting a 'newer' preposition *by*.

There seems to be another tendency: an individual writer seems to prefer a certain verb (aside from *surprise*, the most widely-used psych-verb). In Britain, Gaskell, for instance, makes great use of *shock* and *startle*, Ainsworth *alarm*, Thackeray *amaze*, Trollope *astonish*, Eliot *startle*, Conrad *amaze* and *startle* and Gissing *astonish* and *startle*, while in America, Sedgwick and Irving make a good use of *startle*, Cummins and Twain *astonish*, London *appall* and so on.

The writers who prefer to use *by* tend to make much use of *startle*, the verb mainly occurring with *by*. Gaskell, Eliot, Trollope, Yonge, Conrad, Sedgwick are such writers. Furthermore, Trollope uses *by* many times with *astonish* and Conrad with *amaze*, seemingly challenging the norm of the day. Ainsworth and Sedgwick use *alarm* with *by* much more frequently than *at*, which occurs with both *at* and *by*. Gissing and Yonge are the writers who prefer to use *at* and they use *at* with *startle*, much more frequently than the aver-

age. Thackeray is also an *at-user* and he makes much use of *amaze* and *astonish* but uses *startle* very infrequently.

Each writer may have had their own favorite verb and they may have decided that it would be the better word for expressing 'amazement' or 'surprise' in a particular context and may have used them with some significant meanings intended.

Furthermore, a conscious distinction between *at* and *by* seems to be made on a writer's part, as in (7), where three psych-passives are used in proximity and the choice of preposition seems to be dependent on a writer's preference.

(7)

He was **surprised at** the commonness of the clay. Life proved not to be fine and gracious. He was **appalled by** the selfishness he encountered, and what had surprised him even more than that was the absence of intellectual life. Fresh from revolutionists he was **shocked by** intellectual stupidity of the master class. (London, *The Iron Heel*)

In (7), London uses the passives of *surprise*, *appall* and *shock* in a four-line space and seems to make an intentional distinction between the prepositions depending on the verb. The passive of *surprise* usually comes with *at*, so London's use is a normal usage, but the passives of *appall* and *shock* generally comes with *at*, not *by* in America English. This use of London's seems to reflect his overall preference for *by* with psych-passives.

5.3 The ratio of *at* and *by*

Let us now present the frequencies of occurrence of *at* and *by*

with psych-passives in Britain and America, with the total numbers on Table 3.

Table 3 Frequency of occurrence of psych-passive + *at* or *by* in LModE

Verb \ Prep	Britain		America		Total	
	at	by	at	by	at	by
alarm	127	138	85	58	212	196
amaze	157	16	58	8	215	24
appall	21	26	27	17	48	43
astonish	248	39	131	10	379	49
astound	29	22	12	13	41	35
baffle	0	22	0	13	0	44
bewilder	9	71	5	51	14	122
dismay	28	29	13	7	41	36
perplex	13	52	3	36	16	88
shock	161	74	66	37	227	111
startle	63	263	45	162	108	425
stun	0	50	1	15	1	65
Total	856	802	446	427	1302	1229

From the table it is clear that the general tendencies of occurrence of *at* and *by* seem to be quite similar between Britain and America. The ratios of occurrence of *at* and *by* for each verb seem to show similarities as well.

The total numbers of occurrence of *at* and *by* and the ratio of them are shown on the following table. The overall ratio of *at* and *by* in Late Modern English is approximately 1 : 0.94.

Table 4 The ratio of *at* and *by* in LModE

	Britain		America		Total	
Prep	at	by	at	by	at	by
Frequency	856	802	446	427	1302	1229
Ratio	1	0.94	1	0.96	1	0.94

It shows that *at* and *by* occur more or less in similar rates between Britain and America, with *at* slightly more preferred to *by*. The same research was conducted in my previous paper (Taketazu, 2015) and the ratio we obtained (1 : 0.94) has turned out to be the same as the rate here after twice as much data have been added.

6. Early Modern English

We have seen the behaviors of psych-passives occurring with *at* or *by* in Late Modern English (1700–1900). Now let us go back to the period of Early Modern English (1500–1700) and see how these psych-passives were behaving a few centuries earlier. The comparison of the usages of the two periods will reveal how certain linguistic behaviors in later times are derived from those of the previous period.

The writers and works we examined for Early Modern English are Edmund Spenser (1552?–99), William Shakespeare (1564–1616), *The King James Bible* (1611), Daniel Defoe (1660?–1731) and Jonathan Swift (1667–1745). They are the major writers representing the period and their English may be considered to be typical of the literal English of the day.

I have also examined other writers such as Sidney Philip (1554–

86), Francis Bacon (1561–1626), Ben Jonson (1572–1637), Christopher Marlowe (1564–93), Thomas Nashe (1567–1601), John Milton (1608–74), John Bunyan (1628–88) and John Dryden (1631–1700). Their works, however, yield very few examples of these psych-passives in question. The writers who yield results are only Marlowe, Milton and Bunyan, and the results are so meager that they have been grouped together and are treated in 6.6.

6.1 Spenser

The psych-verbs that Spenser mainly used in his *Faerie Queene* (*FQ*) are *amaze*, *astonish* and *dismay*. *Appall*, *perplex* and *stun* are used but not in the passive. *Bewilder*, *shock* and *startle* does not seem to be in Spenser's vocabulary (Osgood, 1963). Let us show some examples of psych-passives with an agentive preposition in (8).

(8)

She greatly grew **amazed at** the sight, (*FQ*, I.v.21); I stand **amazed At** wondrous sight... (*Amoretti*, iii,7); She was **astonisht at** her heavenly hew, (*FQ*, II.vii); And stood awhile **astonisht at** his words, (*Col.* 650); And though himselfe were **at** the sight **dismayd**, (*FQ*, II.vii.6); Greatly thereat was Britomart **dismayd**, (*FQ*, III.xi.22); **By** her I entering half **dismayed** was; (*FQ*, IV.x.36); etc.

The frequencies of occurrence of prepositions are as follows: *amaze* (*at* 6, *with* 1); *astonish* (*at* 4, *with* 3); *dismay* (*at* 4, *with* 19, *by* 1). The agentive prepositions that Spenser mainly used are *at* and *with*. *At* has remained in use till Present-day English, while *with* has gradually declined and fallen into near disuse.⁸⁾ *By* appears only once

in Spenser, but this is a very significant instance because it seems to be one of the earliest examples in which *by* is used with a psych-passive.⁹⁾ Spenser's usage may be said to show a presage of the predominant occurrence of *at* and a forerunner of *by* to be used in Late Modern English.

6.2 Shakespeare

The psych-verbs that Shakespeare used with an agentive preposition are *amaze* and *perplex*. *Amaze* occurs with *at* five times and *perplex* takes *with* once, as in (9).

(9)

I am more **amazed at** his dishonour Than **at** the strangeness of it. (*Comedy of Errors*, III.ii.149); I am **amazed at** your passionate words. (*M. N. Dream*, III, ii, 220); What, **amazed At** my misfortunes? (*Henry VIII*, III, ii, 374–5); till you do return, I rest **perplexed with** thousand cares. (*Henry VI: V*, v, 95); etc.

⁸⁾ This reminds us of the history of the passives of *surprise* (Taketazu, 2014: 27–29). It first started with the occurrence of *with*, then followed by *at*, and the final entrance of *by*. Psych-passives meaning 'surprise' or 'amazement' occurring with *at* may have already started before Spenser's time. Interestingly enough, *surprise* had yet to be used in a psychological sense in Spenser, but it was used in a physical sense (*He was surprised, and buried under beare*, *FQ*, III. iii. 11.2). The psychological use was a later development (the first citation is 1692) and this is also true of Shakespeare.

⁹⁾ *Dismay* in the passive is used with *by* three times: two of them are used in a physical sense and one is psychological. This is the only instance of the psych-passive used with *by* in Spenser. This sort of overlapping use of *by* to cover physical and psychological senses may have triggered the extended use of *by* to other psych-verbs in general.

Appall and *dismay* are used in the passive but with no preposition. *Astonish* and *startle* only occur in the active voice and no passives are observed. *Astound*, *bewilder*, *shock* and *stun* do not seem to be in Shakespeare's dictionary (Onions, 1911).

It may be Shakespeare's rhetoric but not showing agency in his many uses of psych-passives seems to be a little enigmatic, compared to Spenser's usages, in which agentive noun phrases are expressed 38 times altogether. It may be that Shakespeare's use of psych-passives is a reflection of the playwright's being conscious that these predicates are felt to be adjectival.

6.3 *The King James Bible*

The verbs used in the passive with a preposition in *the Bible* are *amaze*, *astonish*, *dismay* and *perplex*. Let us show some examples in (10).

(10)

And they were all **amazed at** the mighty power of God. (*Luke*, 9:43); the people were **astonished at** his doctrine: (*Matthew*, 7:28); And the disciples were **astonished at** his words. (*Mark*, 10: 24); I was **dismayed at** the seeing of it. (*Isiah*, 21:3); Learn not the way of the heathen, and be not **dismayed at** the signs of heaven. (*Jeremiah*, 10:2); 'Be not afraid nor **dismayed by** reason of this great multitude; (*I Chronicle* 20:2); as they were much **perplexed** thereabout, (*Luke*, 24:4); etc.

The numbers of occurrences are as follows: *amaze* (*at* 2), *astonish* (*at* 14), *dismay* (*at* 5), *perplex* (*about* 1). *At* is virtually the only preposition occurring with all the psych-passives in the *Bible*. *By* in

“dismayed by reason of this great multitude” is a marginal and ambiguous example whether this is an agentive preposition or a part of an idiomatic expression of “by reason of” since in other versions the same line is translated as “dismayed at this multitude”. The absence of *by* with psych-passives except this example suggests that this *by* may not be likely to be an agentive preposition, although it could have been extended to the use of the agentive preposition in later usages.

The dominant occurrences of *at* in Spencer, Shakespeare and *the King James Bible* suggest that it was widely used during the earlier part of the Early Modern English period. Considering the continuous use of *at* until Present-day English, it is natural to think that *at* kept being used prevalently throughout the Late Modern English period as well.

6.4 Defoe

The psych-verbs occur quite frequently in Defoe’s works. They may be more likely to be used in adventurous novels like *Robinson Crusoe*, compared to the religious works of Milton or Bunyan. The verbs used in the passive are *alarm*, *amaze*, *astonish*, *perplex*, *shock*, *startle* and *stun*. Let us show some examples.

(11)

I was so **alarmed at** the just reason... (*Captain Singleton*); I was not **alarmed at** the news, (*Moll Flanders*); the country being **alarmed with** the appearance of the ships... (*Singleton*); and all the country **alarmed about** them. (*A Journal of the Plague Year*); he seemed **amazed at** the sight of our bark, (*Singleton*); I was indeed **astonished at** the impu-

dence of the men, (*Plague Year*); He was **astonished at** her discourse, (*Moll*); I was so **astonished with** the sight...(*Robinson Crusoe*); Our men were **perplexed at** this, (*Singleton*); I was greatly **perplexed about** my little boy. (*Moll*); I was indeed **shocked with** this sight, (*Plague Year*); I was a little **startled at** that, (*Moll*); William was **stunned at** my discourse, (*Singleton*); etc.

The numbers of occurrences are as follows; *alarm* (at 3, with 2, about 1), *amaze* (at 2, with 1), *astonish* (at 4, with 1), *perplex* (at 1, about 1), *shock* (with 1), *startle* (at 1), *stun* (at 1).¹⁰⁾ *At* is the most frequently used preposition (12 times) and *with* comes second (5 times), followed by *about* (twice) and *by* has not appeared yet in Defoe.

6.5 Swift

The verbs that Swift used in the passive are *alarm*, *amaze*, *astonish*, *perplex* and *stun*. Some of the examples, all from *Gulliver's Travels*, are given below.

(12)

I was... **alarmed with** the cries; He was **amazed at** the continual noise it made; they...were really **amazed at** the sight of a man...; he was more **astonished at** my capacity for speech and reason; He was perfectly **astonished with** the historical account...; I was quite **stunned with** the noise; etc.

The number of occurrences are: *alarm* (with 3), *amaze* (at 4), *as-*

¹⁰⁾ *Surprise* is very frequently used in a psychological sense and it is used with *at* (18 times), with *with* (17 times) and with *by* (once).

tonish (at 1, with 1), perplex (about 1), stun (with 1). Compared to Defoe, Swift makes less use of these verbs and older prepositions like *with* or *about* seem to be preferred.

The usage of Defoe and Swift does not seem to be too different from those of their predecessors. The main verbs used are *amaze* and *astonish* and their passives occur mainly with *at* or *with*.

6.5 Other writers

Three writers are treated in this section: Marlowe, Milton and Bunyan. The verbs that Marlowe used in the passive with a preposition are *amaze* and *dismay*. *Amaze* in the passive occurs with *at* and *dismay* with *with*. Milton used *amaze* and *perplex*. The occurrences are only once for each verb. Bunyan used *amaze* and *dismay*.

The examples in (13) are the ones of Marlowe, Milton, and Bunyan.

(13)

Marlowe: And hosts of soldiers stand **amazed at** us; (*I Tamberlaine the Great*, I. ii. 220); the Soldan is No more **dismayed with** tidings of his fall Than in the haven... (*I Tamberlaine*, IV.iii.30); Midas, **dismayed at** the sudden alteration, (*Doctor Faustus*, 334)

Milton: and flocking birds, with those also that love twilight...**amazed at** what she means, (*Aleopagitica*); All **amazed At** that so sudden blaze, (*Paradise Lost*); be not **dismayed**, Nor troubled **at** these tidings from the earth, (*Paradise Lost*); **Perplexed** and troubled **at** his bad success (*Paradise Regained*).

Bunyan: But I say, my Neighbours were **amazed at** this my great conversion, (*Grace Abounding*); for he, being **dismayed with** their coming

upon him, (*The Pilgrim's Progress*); etc.

The variety of verbs and prepositions used are not much different from the earlier writers, showing the continuation from the earlier period to this late Early Modern. *Alarm*, *amaze*, *astonish*, *dismay* and *perplex* are the main verbs and their passives occur with such prepositions as *at*, *with* and *about*. *By* had yet to be used at this stage.

6.6 Some characteristics of Early Modern English

We have seen the psych-passives used with the prepositions in Early Modern English. Table 5 on the next page shows how each verb is used in the passive with a preposition in each writer or work. Verbs of no occurrence such as *astound* and *bewilder* are omitted from this table.

It is observed that the verbs chiefly used in the earlier part of this period are *amaze*, *astonish* and *dismay*. Their passives occur mostly with *at*, *with* and *about*. *At* is the most frequently used preposition. *By* has hardly appeared at this stage yet, except for one example in Spenser.

At may have been used to indicate the semantic role of 'stimulus' of the agentive noun phrase, as Leech and Svartvik (2002: 163) state as follows: "An emotive reaction to something can be expressed by the preposition *at*" and "In <BrE>, *with* is often used instead of *at* when what causes the reaction is a person or object rather than an event." This description in Present-day English should be applicable to the English of this period as well.

Table 5 Psych-passives with agentive prepositions in EModE

		alarm	amaze	astonish	dismay	perplex	shock	startle	stun	Total
Spenser	at	–	6	4	4	0	–	–	0	14
	with	–	1	3	19	0	–	–	0	23
	by	–	0	0	1	0	–	–	0	1
Shakespeare	at	0	5	0	0	0	0	0	–	5
	with	0	0	0	0	1	0	0	–	1
	by	0	0	0	0	0	0	0	–	0
Bible	at	0	2	14	5	0	–	0	–	21
	with	0	0	0	0	0	–	0	–	0
	about	0	0	0	0	1	–	0	–	1
Defoe	at	3	2	4	0	1	0	1	1	12
	with	2	1	1	0	0	1	0	0	5
	about	1	0	0	0	1	0	0	0	2
Swift	at	0	4	1	0	0	0	0	0	5
	with	3	0	1	0	0	0	0	0	4
	about	0	0	0	0	1	0	0	1	2
Others	at	0	4	0	2	1	0	0	0	7
	with	0	0	0	2	1	0	0	0	3
	about	0	0	0	0	0	0	0	0	0
Total		9	25	28	33	7	1	1	2	106

Note: 0 means that the verb is used but not in the passive if used in the passive, with no preposition; – means that the verb is not used by the author

It can also be interpreted to indicate ‘instrument’, as Mustanoja (1960: 363–64) says, “Cases of this kind illustrate the development of the original local use of *at* into an instrumental function.” Other verbs such as *astonish*, *alarm* and *dismay* must have followed suit and came to take *at* to show ‘stimulus’ or ‘instrument’.

These verbs continued to be used with *at* until and during the Late Modern English period. This continued use of *at* may be said to be due to the ‘frequency’ principle at work (or we may say the ‘old-habits-die-hard’ principle), as is suggested by Baugh’s statement

(1935: 65), which says, “An examination of the words in an Old English dictionary shows that about eighty-five per cent of them are no longer in use. Those that survive, to be sure, are basic elements of our vocabulary, and by the frequency with which they recur make up a large part of any English sentences.”

Perplex, *shock*, *startle* and *stun* are each used only once and considering their first citation dates used in psychological senses (*perplex* 1694, *shock* 1686, *startle* 1595), it is little wonder that they are only sporadically used.

Such verbs like *bewilder* or *startle* hardly occur at all. These verbs are latecomers and when they made an entrance, they may have begun to occur with a newer preposition *by*, not bound by the yoke of older prepositions such as *at* or *with*. This seems to be the presage of the usages of the forthcoming period.

Since *by* is virtually non-existent during this period except one example of Spenser's, the ratio of *at* and *by* in Early Modern English period can be roughly calculated to be 1 : 0.02 and for the sake of convenience, it may be rounded to be 1 : 0.

7. Present-day English

We have shown a history of psych-passives with agentive prepositions from Early Modern English to Late Modern English. Now let us examine the behaviors of the psych-passives with agentive prepositions in Present-day English.

7.1 Results from the BNC and the COCA

The BNC and the COCA were used to collect data from

Present-day English. From the BNC we obtained the data of current British English and from the COCA, the data of contemporary American English. The BNC¹¹⁾ is a corpus of 100 million words, whereas the COCA is a corpus of 450 million words. The data from the COCA¹²⁾ is supposedly 4.5 times larger than that of the BNC. In order to make an easier and clearer comparison and contrast of the data, adjustments were made by dividing the data from the COCA by 4.5. Table 6 below shows the results obtained after the adjustments through the division by 4.5 times.

Table 6 Psych-passives with *at* or *by* in PE

Verb \ Prep	Britain		America		Total	
	at	by	at	by	at	by
alarm	78	144	40	101	118	245
amaze	197	69	259	115	456	184
appall	95	132	72	96	167	228
astonish	42	60	48	44	90	104
astound	9	17	16	30	25	47
baffle	1	63	4	60	5	123
bewilder	6	81	6	44	12	125
dismay	28	45	21	58	49	103
perplex	3	19	3	33	6	52
shock	94	229	117	227	211	456
startle	12	101	20	137	32	238
stunn	16	104	31	200	47	304
Total	581	1064	637	1145	1218	2209

¹¹⁾ The corpus used is Shogakkan's BNC, which is practically the same corpus as the original BNC except for a very small number of works which are excluded because of a copy right matter.

¹²⁾ The COCA stands for The Corpus of Contemporary American English created at Brigham Young University.

7.2 The comparison of Late Modern and Present-day English

It may be interesting to note that there is a rise and fall of popularity among the verbs. The most frequently used verb is *shock*, followed by *amaze*, *stun*, *appall*, *alarm*, *startle* and so on, in the order of frequency. The order has changed from that of Late Modern English: less popular verbs like *shock* or *appall* have gained more popularity and more popular verbs like *astonish* and *startle* have lost favor.

In Late Modern English the passives of several verbs occurred with *at* more than *by*. Present-day English, however, has seen a totally different picture: all the psych-verbs except *amaze* occur with *by* more frequently than *at*.

The ratio of *at* and *by* in Late Modern English was approximately 1 : 0.94, whereas in Present-day English, *by* has become so dominant for most of the verbs that the ratio of *at* and *by* has become 1 : 1.8, as is shown on Table 7.

Table 7 The ratio of *at* and *by* in PE

Prep	Britain		America		Total	
	at	by	at	by	at	by
Frequency	581	1064	637	1145	1218	2209
Ratio	1	1.8	1	1.8	1	1.8

The comparison of the ratio of Late Modern English in 5.1 and that Present-day English, together with the result of Early Modern English will show the shift of the ratios on Table 8.

Table 8 The shift of the ratios of *at* and *by* from EModE to PE

	<i>at</i>	<i>by</i>
EModE	1	0
LModE	1	0.94
PE	1	1.8

The general decline of *at* and the overall increase of *by* can be clearly seen from the table and it seems to suggest that *by* has been increasing its might and main to be ousting *at* in the history of psych-passives.

7.3 A developmental history of English passives + *by*

Considering the increase of *by* and the decline of *at* as an agentive preposition, psych-passives seem to have been treading the same developmental path that the passives in English in general had taken. In the history of the English passives, *by* became so dominant as to replace other agentive prepositions such as *at*, *about*, *of*, *through*, *with* and so on, which had been used from the Old English period (Mustanoja 1960: 442; Visser, 1973: §§1987–2000; Ukaji, 1982: 389–90). This shift to *by* was assumed to have begun to take place in the 15th century (Jespersen, 1927: 317; Mustanoja, 1960: 442) and completed when *of* declined and finally *with* went into disuse around the middle of the 18th century after other prepositions had already disappeared in the earlier centuries (Visser, 1973: §§1987–2000; Araki-Ukaji, 1984: 254–57; Peitsra, 1993: 228; etc.).

The same kind of shift may have been happening to the pas-

¹³⁾ The reasons for the delay is discussed in my previous papers (Taketazu, 2014: 41–42, 2015: 73–74).

sives of psych-verbs, albeit with a few centuries delay.¹³⁾ More and more psych-passives seem to have been forsaking *at*, *with* or *about*, which had been used in the Early Modern and Late Modern English periods, and begun to be adopting more and more of *by*, resulting in the dramatically increasing use of *by*-phrase with psych-passives in Present-day English and the possible dominance of *by* over other prepositions in the future English.

8. Summary

This article is an attempt to find out the behaviors of psych-passives with the agentive preposition *at* or *by* in Late Modern English, comparing the results with those of Early Modern and Present-day English. By collecting data of some thirty writers of Britain and America from the computer corpora, the frequencies of occurrence of *at* or *by* with psych-passives were examined.

It has been found out that in Late Modern English, verbs are classified into three groups depending on which preposition they occur with. *Amaze* and *astonish* occur predominantly with *at*, whereas verbs like *baffle*, *perplex*, *startle* and *stun* show opposite tendency, occurring mostly with *by*. There is another group of verbs such as *alarm*, *appall*, *astound* and *dismay* which show an occurrence of *at* and *by* in similar numbers. Interestingly enough, some show a fluctuation of occurrence between the two countries. *Alarm*, for instance, occurs with *by* more than *at* in Britain, while in America it is the other way around. This is also true of other verbs.

Some observations can also be made about writers: some writers show a preference for *at* and others for *by*, and there are writers

who use both *at* and *by* in similar numbers. Fielding, Scott, Austen, Thackeray, Yonge, Gissing in Britain are writers who prefer to use *at*, while Ainsworth, Gaskell, Trollope, Collins and Conrad tend to use *by*. In America, Washington, Poe, Thoreau, Twain like to use *at*, whereas Irving, Cooper, Sedgwick, Hawthorne and Willa prefer to use *by*. Some writers seem to have a favorite verb and they use it much more frequently than other verbs.

The data from the Early Modern and the Present-day English periods were also examined. The examination of the usages of Early Modern shows that *amaze*, *astonish* and *dismay* are the main verbs used in the passive and occurred mostly with *at*, *with* and *about*. *At* has continued to be used till Present-day, while *with* has declined to fall into gradual disuse. There is an example in which *by* is used with the passive of *dismay* in Spenser's *Faerie Queene* and this may be one of the earliest examples of *by* being used with a psych-passive and may be the forerunner of the later development.

After examining the data of Present-day English, it has been found out that *amaze* is the only verb which seems to show an obstinate affection for *at*, maybe because of the long history of the friendly combination of the passive of the verb and *at*. Some other verbs have changed their behavioral patterns to occur more with *by* and some others have made the bond with *by* stronger. It is obvious that agentive prepositions with psych-passives have been shifting from *at* or *with* to *by*. This may be the path that the English passives in general have trodden a few centuries earlier and the psych-passives seem to be following the same path.

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Acknowledgment

First of all, I have to extend my gratitude to Professor Mitsuharu Matsuoka of Nagoya University, who has created a corpus of Victorian Literary Studies Archives and allows the corpus researchers to use it freely. Without this corpus, this research would not have been as complete as it is.

Also I have to thank Mr. Caine, one of my colleagues, who kindly read the manuscript and gave me useful comments about it, so that I could emend any irregularities therein. The responsibility for any remaining errors is of course mine.