On the Productivity of the Suffixes -NESS and -ITY: From Chaucer to Shakespeare

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ABSTRACT
The purpose of the present paper is to show that the two competing suffixes -ness and -ity differ significantly in productivity. It has been repeatedly shown that in Present-day English the suffix -ness is more productive than the suffix -ity. There are, however, only a few monographs which deal with the productivity of the two nominal suffixes from a historical point of view. Therefore, this paper will make a morphological and semantic analysis of the two suffixes -ness and -ity both in Chaucer and in Shakespeare and will investigate further the question whether or not a morphological or semantic restriction can be definitely established for the productivity of the two synonymous morphemes.

1. Elaborate and scholarly investigations on the productivity of the synonymous suffixes -ness and -ity have been made by many scholars. Matthews (1974), Aronoff (1976), Randall (1980), Reichl (1982), Kiparsky (1983), Romaine (1983), Van Marle (1985) and Shimamura (1991) all devote fruitful discussion to the suffixes in Present-day English. Riddle (1985) and Romaine (1985) deal with the productivity of the two competing suffixes from a historical point of view. Aronoff (1976) says that “the productivity of a WFR [=Word Formation Rule] is the result of the interplay of a complex of factors”. Most of the research works mentioned above discuss the productivity of the suffixes -ness and -ity mainly on the basis of Aronoff’s proposal. The aim of the present paper is to discuss morphologically and semantically the
productivity of the suffixes *-ness* and *-ity* both in Chaucer's English and in Shakespeare's and to refer to the question whether or not what is observed in the Present-day English suffixes *-ness* and *-ity* may be true of those both in Chaucer's and in Shakespeare's English.

1. The Distribution of the Suffixes *-ness* and *-ity*

The suffix *-ness* bears some relation to Gothic *-assus/-inassus* (e.g. *piudinassus* [= kingdom]). In Old English it is employed to form abstract feminine nouns, along with other suffixes like *-had*, *-dom*, *-scipe* (e.g. *druncenhad*, *druncennesse*, *druncenscipe*). On the other hand, the suffix *-ity*, which is semantically cognate with the suffix *-ness*, makes its appearance in 14th and 15th century loanwords from Old French and, later, in loanwords from Latin. In short, the suffix *-ness* is derived from Germanic and the suffix *-ity* from Romance.

Before going on to discuss the productivity of the two suffixes *-ness* and *-ity*, it is necessary to make reference to the distribution of the competing suffixes both in Chaucer and in Shakespeare.6)

<table>
<thead>
<tr>
<th>Table I Chaucer</th>
<th>Type-frequency</th>
<th>Token-frequency</th>
<th>Type : Token</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>-ness</em></td>
<td>132 (64%)</td>
<td>1065 (65%)</td>
<td>1 : 8.07</td>
</tr>
<tr>
<td><em>-ity</em></td>
<td>74 (36%)</td>
<td>570 (35%)</td>
<td>1 : 7.70</td>
</tr>
<tr>
<td>Total</td>
<td>206</td>
<td>1635</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table II Shakespeare</th>
<th>Type-frequency</th>
<th>Token-frequency</th>
<th>Type : Token</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>-ness</em></td>
<td>231 (64%)</td>
<td>1644 (61%)</td>
<td>1 : 7.12</td>
</tr>
<tr>
<td><em>-ity</em></td>
<td>129 (36%)</td>
<td>1051 (39%)</td>
<td>1 : 8.15</td>
</tr>
<tr>
<td>Total</td>
<td>360</td>
<td>2695</td>
<td></td>
</tr>
</tbody>
</table>

Tables I and II show that the type/token nouns in *-ness* (Chaucer: 64%/65% and Shakespeare: 64%/61%) have a higher frequency than nouns in *-ity* (Chaucer: 36%/35% and Shakespeare: 36%/39%) both in Chaucer and in Shakespeare. From the ratio of token to type, however, it is obvious that in Chaucer the nouns in *-ness* (65%: 64%)7) occur
On the Productivity of the Suffixes -NESS and -ITY

roughly as often as the nouns in -ity (35%: 36%) and that the -ity forms (39%: 36%) appear with a higher frequency than the -ness forms (61%: 64%) in Shakespeare. In other words, token nouns in -ity are used more frequently in Shakespeare. According to Bybee's view that "productivity of morphological rules must be connected to high type frequency", however, we may conclude that the suffix -ness is much more productive than the suffix -ity both in Chaucer and in Shakespeare.

In comparing the versions of De Consolatione Philosophiae translated respectively by King Alfred, Chaucer and Queen Elizabeth I, Suzanne Romaine gives us the token-frequency of the suffixes -ness and -ity.

Table III De Consolatione Philosophiae

<table>
<thead>
<tr>
<th></th>
<th>ALFRED</th>
<th>CHAUCER</th>
<th>ELIZABETH</th>
</tr>
</thead>
<tbody>
<tr>
<td>ness</td>
<td>87</td>
<td>59</td>
<td>53%</td>
</tr>
<tr>
<td>ity</td>
<td>52</td>
<td>38</td>
<td>47%</td>
</tr>
</tbody>
</table>

(Romaine 1985: 459)

In the translation by Chaucer the ratio of the -ness form to the -ity form is 53% to 47%. In her translation Elizabeth uses -ness and -ity formation in equal proportions (50% of each). Although Chaucer uses the -ness words more often than the -ity words, the distribution of the -ity forms both in Chaucer and in Elizabeth shows that the nouns in -ity occur more frequently in the translation by Elizabeth. This is in complete agreement with the fact that the token-frequency of the -ity form is higher in Shakespeare than in Chaucer (8.15%: 7.70%) as shown in Tables I and II.

2. An Abstract Morphological Feature

The notion that an abstract morphological feature [± latinate] contained in the base has a close relation with the productivity of the suffix is given in Aronoff (1976). According to Aronoff's proposal, the suffix -ness attaches freely to the bases containing either [± latinate] or
[−latinate], while the suffix -ity is restricted only to the bases containing the feature [+ latinate]. This morphological restriction exerts a great influence upon the difference in productivity between the two morphemes -ness and -ity.

<table>
<thead>
<tr>
<th></th>
<th>Chaucer</th>
<th></th>
<th>Shakespeare</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-ness</td>
<td>-ity</td>
<td>-ness</td>
</tr>
<tr>
<td>[−latinate]</td>
<td>98 (74%)</td>
<td>1 (1%)</td>
<td>151 (65%)</td>
</tr>
<tr>
<td>[+ latinate]</td>
<td>32 (24%)</td>
<td>73 (99%)</td>
<td>80 (35%)</td>
</tr>
<tr>
<td>Obscure Origin</td>
<td>2 (2%)</td>
<td>0 (0%)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>132</td>
<td>74</td>
<td>231</td>
</tr>
</tbody>
</table>

What we notice immediately in reviewing these figures is that both in Chaucer and in Shakespeare the suffix -ness occurs with the bases containing either [+ latinate] or [− latinate] and that the suffix -ity only with the bases containing the feature [+ latinate]. Another point that should be mentioned is that the bases containing [− latinate] predominate over those containing [+ latinate] in the morpheme -ness.11) In Chaucer there is only one example in which the morpheme -ity attaches to the base containing the feature [− latinate] as in scantitee.12) Two words of which the base is of obscure origin are used in Chaucer: tikelnesse (Truth 3) and wrawnesse (I. PS 680).13)

3. A Morphological Restriction on the Base Type to which the Suffix Attaches

This morphological restriction exerts a stronger influence upon the productivity of the two suffixes -ness and -ity than the abstract morphological features.14) Aronoff (1976)15) points out that the suffix -ness attaches more freely to various kinds of bases than the suffix -ity.
On the Productivity of the Suffixes -NESS and -ITY

following list of words shows the occurrence of the morphemes -ness and -ity with different base types.

-NESS and -ITY in Chaucer

-NESS

Xed wikkednesse, wretchednesse
Xful blisfulnesse, welefulnesse, wilfulnesse
Xlees reccheleenesse
Xly liklynesse, semelynesse, unliklynesse
Xous graciousnesse, likerousnesse, preciuousnesse
Xsom fulsomnesse, hoolsomnesse
Xwis rightwisnesse
Xy foolhardynesse, hardynesse, holynesse, gredynesse, lustynesse, unworthynesse, worthynesse

-ITY

Xable immoevablete, notabilitee, perdurablete
Xal bestialite, comunalite, egalitee, sensualitee, universalite
Xile subtilitee
Xous contrarioustee, curiositee, fumositee, mendicite

-NESS and -ITY in Shakespeare

-NESS

Xal equalness
Xed nakedness, wickedness, wretchedness
Xful bashfulness, fearfulness, forgetfulness, fruitfulness, thankfulness, unthankfulness, willfulness
Xish childishness, foolishness, shrewishness, sluttishness
Xive attentiveness
Xless carelessness
Xly costliness, friendliness, lonelinesse, lordliness, loveliness, lowliness, sickliness, uncleanliness, uncomeliness
Xous covetousness, deliciousness, hideousness, monstrousness, seriousness, tediousness, viciousness, voluptuousness
Xsome loathsomeness
Xy cloudiness, daintiness, easiness, faultiness, greediness,
Hiroshi Yonekura

hardiness, haughtiness, heartiness, sauciness, speediness, uneasiness, unworthiness, worthiness

-ITY

Xable capability, disability, mutability
Xal equality, hospitality, immortality, mortality, principality, prodigality, rivalry, sensuality, inequality, liberality
Xile hostility, servility
Xous capacity, commodity, conspectuity/conspicuity, credulity, enormity, fidelity, generosity, impetuosity, iniquity, magnanimity, monstruosity, prolixity, integrity, propinquity, prosperity, pusillanimity, superfluity, tediosity

From the list given above it is evident that both in Chaucer and in Shakespeare the suffix -ness combines more freely with different kinds of bases than the suffix -ity. In particular, the morpheme -ity occurs with certain limited morphological classes of adjectives. This morphological restriction does not mean, however, that the suffix -ness occurs more productively with any kind of bases than the suffix -ity. In Present-day English, for example, bases ending -all-able attach productively to the morpheme -ity.16) This is the case with the adjectives which themselves end in -all-able both in Chaucer and in Shakespeare.

Chaucer:17)

<table>
<thead>
<tr>
<th>Xal/Xable</th>
<th>-ity</th>
<th>-ness</th>
</tr>
</thead>
<tbody>
<tr>
<td>bestial</td>
<td>bestialite</td>
<td>*</td>
</tr>
<tr>
<td>communal (MED)</td>
<td>comunalite</td>
<td></td>
</tr>
<tr>
<td>equal</td>
<td>egalitee</td>
<td></td>
</tr>
<tr>
<td>inmoevable</td>
<td>immoevablete</td>
<td></td>
</tr>
<tr>
<td>notable</td>
<td>notabilitee</td>
<td></td>
</tr>
<tr>
<td>perdurable</td>
<td>perdurablete</td>
<td></td>
</tr>
<tr>
<td>sensual (MED)</td>
<td>sensualitee</td>
<td></td>
</tr>
<tr>
<td>universal</td>
<td>universalite</td>
<td></td>
</tr>
</tbody>
</table>

Shakespeare:

<table>
<thead>
<tr>
<th>Xal/Xable</th>
<th>-ity</th>
<th>-ness</th>
</tr>
</thead>
<tbody>
<tr>
<td>capable</td>
<td>capability</td>
<td></td>
</tr>
</tbody>
</table>
On the Productivity of the Suffixes -NESS and -ITY

In Chaucer we cannot find any example in which adjectives ending in -all-able are connected with the morpheme -ness, while a single example of this sort (as in equalness) occurs only in Shakespeare. This phenomenon is called 'the potentiation of affix x by affixy' (in this case affix y must be placed before affix x).\(^{18}\) Both in Chaucer and in Shakespeare -al or -able (affix y) potentiates -ity (affix x).\(^{19}\)

**4. Blocking**

Aronoff (1976) points out that "there is a more direct connection between lexical listing and productivity".\(^{20}\) This connection is related to a phenomenon which is called 'blocking'.\(^{21}\) 'Blocking' describes the phenomenon by which one form is precluded by the simple existence of another. The morpheme -ous can derive a new word from the combination with either -ness or -ity. However, if there exists in a given stem both an adjective of the suffix -ous and a semantically related abstract noun, then it is not possible to form the -ity derivative of the -ous adjective.

Chaucer:\(^{22}\)

<table>
<thead>
<tr>
<th>Xous Nominal -ity -ness</th>
</tr>
</thead>
<tbody>
<tr>
<td>contrarious contrarioustee contrariousnesse (MED)</td>
</tr>
<tr>
<td>curious curiosite curiousnesse</td>
</tr>
<tr>
<td>Hiroshi Yonekura</td>
</tr>
<tr>
<td>------------------</td>
</tr>
<tr>
<td>fumous (MED) * fumositee (MED)</td>
</tr>
<tr>
<td>gracious grace graciousnesse</td>
</tr>
<tr>
<td>likerous lecherie likerousnesse</td>
</tr>
<tr>
<td>precious preciosite preciousnesse</td>
</tr>
<tr>
<td>prosperous (MED) prosperitee prosperousnesse (MED)</td>
</tr>
</tbody>
</table>

Shakespeare:

<table>
<thead>
<tr>
<th>Xous Nominal</th>
<th>-ity</th>
<th>-ness</th>
</tr>
</thead>
<tbody>
<tr>
<td>capacious (OED) * capacity</td>
<td>capaciousness (OED)</td>
<td></td>
</tr>
<tr>
<td>commodious * commodity</td>
<td>commodiousness (OED)</td>
<td></td>
</tr>
<tr>
<td>conspicuous (OED) * conspetuity</td>
<td>conspicuousness (OED)</td>
<td></td>
</tr>
<tr>
<td>credulous * credulity</td>
<td>credulousness (OED)</td>
<td></td>
</tr>
<tr>
<td>enormous * enormity</td>
<td>enormousness (OED)</td>
<td></td>
</tr>
<tr>
<td>fidelious (OED) * fidelity</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>generous * generosity</td>
<td>generousness (OED)</td>
<td></td>
</tr>
<tr>
<td>hideous * hideosity (OED)</td>
<td>hideousness</td>
<td></td>
</tr>
<tr>
<td>impetuous * impetuosity</td>
<td>impetuousness (OED)</td>
<td></td>
</tr>
<tr>
<td>iniquitous (OED) * iniquity</td>
<td>iniquitousness (OED)</td>
<td></td>
</tr>
<tr>
<td>magnanimous/magnanimous</td>
<td>magnanimity</td>
<td>magnanimousness (OED)</td>
</tr>
<tr>
<td>prolixious * prolixity</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>propinquitous (OED) * propinquity</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>prosperous * prosperity</td>
<td>prosperousness (OED)</td>
<td></td>
</tr>
</tbody>
</table>
On the Productivity of the Suffixes -NESS and -ITY

pusillanimous * pusillanimity pusillanimousness (OED)

serious * seriousness (OED)

superfluous * superfluity superfluousness (OED)

tedious * tediosity tediousness

vicious vice * viciousness

In Chaucer the already existing nouns grace and lecherie respectively block the new -ity derivative, while all the -ness derivatives of -ous adjectives are never blocked. A careful examination of all the instances found in the Shakespearean works shows that the potential -ity noun does not actually occur at all because of the pre-existing word vice which expresses the meaning that would have been associated with the potential -ity derivative. We may, therefore, reasonably conclude that blocking plays a significant role in the choice between -ness and -ity both in Chaucer and in Shakespeare.

5. Color Words
The claim that the morphemes -ness and -ity display a tendency to semantic differentiation may be made for color words, which only take the morpheme -ness. All the instances of color words, though quite few, found both in Chaucer and in Shakespeare take only the -ness form.

Shakespeare: blackness [OE] OTH 2.1.133
whiteness [OE] 2H4 1.1.68
yallowness [OE] WIV 1.3.102

All the examples mentioned above are of Old English origin.

6. Count Nouns
The -ity words more frequently occur as count nouns than the -ness words. In short, the fact that the -ity nouns are regularly pluralized in
order to express concrete meaning shows that the morpheme -ity is more productive than the morpheme -ness.26)

Chaucer:
-ness (12 occurrences)
  besynesses, bitternesses, blisfulnesses, dirknesses, goodnesses,
  hardnesses, roundnesses, schrewednesses, seknesses, unselynesses,
  wikkednesses, woodnesses

-ity (19 occurrences)
  adversitees, auctoritees, benignitees, comunalites, dignytees,
  extremytees, familiarites, iniquitees, mendicitees, nativites,
  necessites, propreties, prosperites, qualites, sensibilities,
  singularites, subtilitees, superfluytees, vanytees

Shakespeare:
-ness (2 occurrences)
  kindnesses, businesses

-ity (30 occurrences)
  adversities, amities, antiquities, authorities, capacities, concavities,
  conspectuities, deformities, dignities, equalities, extremities,
  impossibilities, indignities, infirmities, iniquities, mutualities,
  necessities, opportunities, particularities, possibilities,
  principalities, prosperities, quiddities, quillities, rarities, sanctities,
  singularities, solemnities, verities, virginities

From the examples listed above it is evident that the words ending in -ity take precedence over the -ness words both in Chaucer and in Shakespeare. In particular, the most obvious feature we should notice is a remarkable predominance of the -ity nouns (30 examples) over the -ness nouns (only 2 examples) in Shakespeare. Pluralization may imply concretization.

7. Transparent and Opaque

Aronoff (1976) states that “there is a direct link between semantic coherence and productivity”.27) To put it differently, semantic transparency is a primary factor in the selection between the two suffixes
-ness and -ity. The suffix -ness tends to denote an embodied attribute or trait, whereas the suffix -ity tends to denote an abstract or concrete entity. In the majority of cases, however, both -ness and -ity express the quality or state of the adjective to which the suffixes attach. For example, variousness as well as variety indicates the quality or state of being various, but variety sometimes refers to kind or sort as in the instance below:

How many varieties of fish are there in the pond?

Aronoff 1976: 38

That is to say, the -ness word is semantically transparent, while the -ity word is sometimes opaque in meaning. In Aronoff's words, "the surer one is of what a word will mean, the more likely one is to use it". In this sense, the morpheme -ness, which creates semantically transparent words, is more productive than the morpheme -ity, which forms semantically opaque words.

The following examples show that both the -ness noun and the -ity noun are transparent both in Chaucer and in Shakespeare.

Chaucer:

(1) Al were he ful of treson and falsnesse,
   F.SQ 506 [=deceitfulness]

(2) These felouns, full of falsite,
    Have many sithes biguyled me
   Rom B 2047-8 [=deceitfulness]

(3) Somme seyde honour, somme seyde jolynesse,
    D.WB 926 [=pleasure]

(4) thanne by the same cause moten thise beestis ben clepid blisful, of whiche beestis al the entencioun hasteth to fulfille here bodily jolyte.
    Bo III. p. 7.12 [=pleasure]

(5) Thanne is ther constaunce, that is stabelenesse of corage,
    I.PS 737 [=steadfastness]

(6) And this ordre constreyneth by his propre stablete the moev-
Hiroshi Yonekura

able thingis, or elles thei scholde fleten folyly.
Bo IV. p. 6.164 [=stability]

(7) Though I have chere of symplenesse,
I am not wery of shrewidnesse.
Rom C 7321-2 [=blamelessness]

(8) Ne fooldest thou nat togidre by replicacioun of wordes a manere wondirful sercle or envirounynge of the simplicite devyne?
Bo III. p. 12.162 [=simplicity]

Shakespeare:

(1) By Jupiter, an angel! or if not,
An earthly paragon! Behold divineness
No elder than a boy!
CYM 3.6.43-5 [=superhuman excellence]

(2) What I am, and what I would, are as secret as maidenhead: to your ears, divinity; to any other's, profanation.
TN 1.5.217 [=the quality or state of being divine]

(3) No way but gentleness, gently, gently. The fiend is rough, and will not be roughly us'd.
TN 3.4.111 [=gracefulness]

(4) A dangerous law against gentility.
LLL 1.1.128 [=politeness]

(5) Withal I did infer your lineaments,
Being the right idea of your father,
Both in your form and nobleness of mind;
R3 3.7.12-4 [=nobleness]

(6) And with no less nobility of love
Than that which dearest father bears his son
Do I impart toward you.
HAM 1.1.110-2 [=generosity]

(7) Run to my study. —By and by!— God's will,
What simpleness is this?—I come, I come!
ROM 3.3.76-7 [=foolishness]

(8) I swear to thee, by Cupid's strongest bow,
By his best arrow with the golden head,
On the Productivity of the Suffixes -NESS and -ITY

By the simplicity of Venus' doves,
.....
To-morrow truly will I meet with thee.

MND 1.1.169-78 [=innocence]

There are some instances in which the -ity noun is opaque in meaning.

Chaucer:

(1) And certes, sire, thogh noon auctoritee
    Were in no book, ye gentils of honour
    Seyn that men sholde an oold wight doon favour

D.WB 1208-10 [=opinion]

(2) The ascendent sothly, as wel in alle nativites as in questions
    and eleccions of tymes, is a thing which that these astrologiens
    gretly observen.

Astr 2.4.1 [=horoscope]

(3) thilke porche broughte somtyme olde men, ful dirke in hir
    sentences..., that wenden that ymages and sensibilities... weren
    enprientid into soules fro bodyes without-forth...;

Bo V. m. 4.3-10 [=sensible species]

(4) Lo, whiche sleightes and subtilitees
    In wommen been!

E.MC 2421-2 [=tricks]

Shakespeare:

(1) There's not a hollow cave or lurking-place,
    No vast obscurity or misty vale,
    Where bloody murther or detested rage
    Can couch for fear,...

Tit 5.2.35-8 [=dark place]

(2) Ay, biddy, come with me. What, man,
    'tis not for gravity to play at cherry-pit with Sathan.

TN 3.4.115-6 [=a grave person]

As is seen from these examples given above, all the -ness nouns are
semantically coherent with the adjectives to which the suffix attaches,
while some of the *-ity* nouns are semantically opaque. There are, however, some cases in which the semantics of the *-ness* derivatives is not nearly so coherent.

Chaucer: 30)

1. How the thought of this man, dreyn, in overthrowynge depnesse, dulthe and forleteth his propre clernesse, myntyng to gon into foreyne *dirknesses* as ofte as his anoyos bysynes waxeth withoute mesure,

   Bo I. m. 2.1-5 [=error]

2. And this thing was nat kept for *holynesse*,
   But al for verray vertu and clennesse,
   And for men schulde sette on hem no lak;

   LGW G 296-8 [=religion]

3. A theef of venysoun, that hath forlaft
   His *licherousnesse* and al his olde craft,
   Kan kepe a forest best of any man.

   C.PH 83-5 [=gluttony]

4. As he hadde seyn it chaunge bothe up and doun,
   Joye after wo, and wo after gladnesse,
   And shewed hem ensamples and *liknesse*.

   A.KN 2840-2 [=parable]

5. For yif that he ne clepide nat ayein the ryght goynge of thing-es, and yif that he ne constreynede hem nat eftsones into *roundnesse* enclyned,

   Bo IV. m. 6.47-50 [=orbits]

6. And she, for sorwe, as doumb stant as a tree,
   So was hir herte shet in hir distresse,
   Whan she remembred his *unkyndeness*.

   B.ML 1055-7 [=unnatural behaviour]

7. Levere in a forest that is rude and coold
   Goon ete wormes and swich *wrecchednesse*.

   H.MP 170-1 [=miserable food]

Shakespeare:

1. If I must die,
On the Productivity of the Suffixes -NESS and -ITY

I will encounter darkness as a bride, MM 3.1.83-4 [=death]

(2) Speak then, thou [whinid'lst] leaven, speak; I will beat thee into handsomeness.

TRO 2.1.15 [=courteous conduct]

(3) Is this your perfectness? Be gone, you rogue!

LLL 5.2.174 [=skill]

(4) You have known him long, and be you well assur’d
He shall in strangeness stand no farther off
Than in a politic distance.

OTH 3.3.11-3 [=distant behaviour]

(5) I will possess him with yallowness, for the revolt of mine is
dangerous—that is my true humor.

WIV 1.3.101-3 [=jealousy]

Both in Chaucer and in Shakespeare, therefore, semantic incoherence is observed in the -ness word as well as in the -ity word. It may be interesting to note here that the transparency criterion does not always predict a preference for -ness rather than -ity.

8. Final Remarks

We have morphologically and semantically discussed the productivity of -ness and -ity on the assumption that the two nominal suffixes are synonymous. The productivity of the two suffixes may be briefly summarized in the following outline:

(1) The morpheme -ity attaches only to the bases containing a morphological abstract feature [+ latinate], while the morpheme -ness is freely connected with both the feature [+ latinate] and the feature [− latinate]. So it follows justly that the suffix -ness is more productive than the suffix -ity.

(2) Although the morpheme -ity restricts itself to certain limited morphological classes of adjectives, the morpheme -ness is fairly free morphologically. Therefore, the productivity of the suffix -ness is very
much higher than that of the suffix *-ity*.

(3) The semantic phenomenon 'blocking' has so great an influence on the shaping of the *-ity* noun that the suffix *-ity* shows a more considerable decrease in productivity than the suffix *-ness*.

(4) In general, a morpheme whose meaning is more semantically coherent will be more productive. Productivity, in other words, goes hand in hand with semantic coherence. In Present-day English the semantics of *-ness* nominalizations is highly coherent and the semantics of *-ity* derivatives is not nearly so coherent. Both in Chaucer and in Shakespeare some of the *-ity* derivatives are not transparent in meaning and the *-ness* derivatives are semantically opaque in some cases. Therefore, the transparency/opaque criterion may not be an important factor in judging the productivity of the two competing suffixes *-ness* and *-ity* both in Chaucer and in Shakespeare.

The present paper is primarily concerned with the productivity of the two competing suffixes. Finally, however, we will briefly touch upon further problems of word formation both in Chaucer and in Shakespeare. Fisiak (1965) makes an attempt at a detailed analysis of the morphemic structure of Chaucer's English. In his book Jacek Fisiak deals with the productivity of all the affixes used in Chaucer. There is, however, still no comprehensive monograph on the principles and practice of Chaucer's word formation.

Oizumi's *Chaucer Concordance* (in ten volumes) contains a reverse-word list attached to each work of Chaucer, which would facilitate an advanced investigation of Chaucer's word formation. For an elaborate and scholarly examination of word formation in Middle English a computerized reversed MED should be made as soon as possible. For a reverse dictionary the MED would have to be transferred to computer-readable form to be manageable for analysis.

A reverse-word list is also contained in Spevack's nine-volume concordance. Under a larger project called the Shakespeare Database Project Professor Heinz Joachim Neuhaus at Münster University has
carried forward the Shakespeare CD-ROM Project, for which he has already prepared an exhaustive list of Shakespeare's word formation. This list would be an essential research tool for an analysis of Shakespeare's word formation.

NOTES

*This paper is a revised version of my earlier draft read at the 10th Anniversary Meeting of the Modern English Association held at Aoyama Gakuin University on May 14, 1993. It is a great honor for me to express my profound thanks to Professor Dr. Sadao Ando at Kansai University of Foreign Studies, who made some valuable comments for my earlier draft. My sincere thanks are also due to Professor Dr. John David Burnley at the University of Sheffield for giving me invaluable suggestions and comments as well as for correcting my English.

1) Koziol (1937: 203-204, 258-259), Jespersen (1942: 449), Marchand (1969: 227-228), Adams (1973: 199) and others remark that the suffixes -ness and -ity are synonymous. Pointing out the difference in meaning between -ness and -ity, however, Riddle (1985: 437) states as follows: "-ness tends to denote an embodied attribute or trait, while -ity tends to denote an abstract or concrete entity."

2) Kastovsky (1985: 221) points out that "a comprehensive history of English word-formation has still to be written." Dalton-Puffer (1992: 465) also says that "the derivational morphology of Middle English is a surprisingly under-researched area, though related areas, such as the share of French loans in the vocabulary, have been studied."

3) Aronoff 1976: 37. Shimamura (1991) has a full discussion on Present-day English word formation and the productivity, primarily upon the basis of Aronoff's view. In her excellent book Professor Reiko Shimamura fully deals with the productivity of other suffixes like -er and -ing and refers to various problems which will confront us in conducting researches into English word formation. In this sense, Professor Shimamura's book is a very stimulating and thought-provoking one for students of English word formation.
4) About productivity in word formation Aronoff (1976: 35) states that “productivity is one of the central mysteries of derivational morphology”. Görlach (1982: 74) remarks as follows:

‘Lebende’ Muster heißen produktiv. Produktivität ist eine Frage des Grades: wie bei Wortschwund kann sie zunehmen oder bis Null abnehmen; aber auch unproduktive Muster können wiederbelebt werden.

Görlach (1991: 171) also points out that “productivity in historical stages of a language can be measured chiefly by the number of new coinages and their frequency in texts”. Kastovsky (1982: 156-168) deals with the relationship between productivity and lexicalization.

5) Kastovsky (1985: 244-246) gives a thorough morphological and semantic analysis of deverbal -ness formations in Old English.

6) Statistical figures given in each Table are based on my examination of Chaucer Concordance (Oizumi 1991) and Shakespeare Concordance (Slevack 1973). The question whether or not the three fragments of The Romaunt of the Rose may be attributed to Chaucer is not taken into consideration in this paper.

7) Masui (1964: 13) says “the words ending in -nesse stand more frequently in rime than out of rime”.

8) Bybee 1985: 133.


11) Romaine (1985: 462) states that “almost as soon as French words (and later Latin) were introduced into English, native prefixes and suffixes were added to them”. Wyclif, for example, uses feerste and fersnesse for the same Latin word ferocitatem:

Judith 3.11 Thei my3ten not swagen the feerste [L ferocitatem] of his brest.

Judith 3.11 Thei doynge these thingis my3ten not swage the fersnesse [L ferocitatem] of his herte.

12) The adjective scant of this noun is derived from Old Norse (MED s.v. scant adj.). To the quotation in which scantitee occurs instead of scantnesse Donner (1978: 3) gives an explanation that “Chaucer tends to choose parallel morphologic forms”.

— 18 —
On the Productivity of the Suffixes -NESS and -ITY

I sey nat that honestitee in clothynge of man or woman is uncovenable, but certes the superfluitee or disordinat scantitee of clothynge is reprevable. (I. PS 431)

The word scantitee is used in parallel with honestitee and superfluitee. Donner (1978: 3) also points out that "scantity is a strange word to find in Chaucer's vocabulary".

13) All the quotations are taken from The Riverside Chaucer. For the abbreviations used in this paper, see Oizumi (1991).

14) Aronoff 1980: 75. This is dealt with in Aronoff (1980: 75) and Scalise (1984: 50).


16) This is pointed out in Marchand (1969: 238) and Williams (1981: 249-250).

17) The two words communal and sensual occur in the MED but not in Chaucer. The asterisk (*) shows that the form in question is used neither in Chaucer nor in Shakespeare.


19) Romaine (1983: 182) gives formations in -ness and -ity in relation to base type which are observed in Present-day English.

<table>
<thead>
<tr>
<th>-ness</th>
<th>-ity</th>
</tr>
</thead>
<tbody>
<tr>
<td>-ous</td>
<td>generosity 94</td>
</tr>
<tr>
<td>-ive</td>
<td>transitivity 96</td>
</tr>
<tr>
<td>-able</td>
<td>reasonability 200</td>
</tr>
<tr>
<td>-al</td>
<td>musicality 315</td>
</tr>
<tr>
<td>-ible</td>
<td>fallibility 156</td>
</tr>
<tr>
<td>-ile</td>
<td>fragility 75</td>
</tr>
<tr>
<td>-ic</td>
<td>domesticity 63</td>
</tr>
</tbody>
</table>

As is obvious from these figures in the table, nouns ending in -ness are most productively connected with bases ending in -ous, -ive, and -able, while the suffix -ity occurs most frequently with the morphemes -al, -ible, -ile, and -ic. Both in Chaucer and in Shakespeare, however, the number of such examples is so small that we cannot draw any conclusion in the present paper.


21) Aronoff 1976: 43. This phenomenon is equivalent to 'pre-emption'
named in Clark and Clark (1979: 798).

22) MED or OED given in the list shows that the word does not occur either in Chaucer or in Shakespeare. And the asterisk (*) denotes the non-occurrence of the potential word both in Chaucer and in Shakespeare.

23) Riddle 1985: 441. However, Professor Burnley says in his private letter (dated the 6th of August, 1993) as follows:

I wasn't sure that your remarks on colour vocabulary were very revealing in view of the fact that -ity is etymologically restricted to romance bases—most ME colour terms (basic colour terms at least) are non-romance, and so there seems to be no reason to suggest semantic factors at work in the lack of -ity forms.

24) All the quotations are taken from The Riverside Shakespeare. The numerals in the citation refer to the act, the scene, and the line. The presentation of the act, the scene, and the line depends upon Wells and Taylor (1988). The abbreviated titles are from Spevack (1973).

25) According to Riddle (1985: 441), in Present-day English the vast majority of color words are of Romance origin.

26) Riddle 1985: 442. In his private letter (dated the 6th of August, 1993) Professor Burnley says “It is a curious thing that -ity words are pluralised more often than -ness words.” He adds “I wonder further whether rhythm has something to do with it (as much as rhyme).” According to his opinion, many of the latinate -ity types have a fixed rhythmical pattern:

antiquity antiquities : equality equalities

but the -ness type is more various and more difficult to use in verse:

goodness goodnesses : bitterness bitternsses


29) The Present-day English translation of the word in question is given in the square bracket. This modern translation is based on the MED, the OED, Davis et al (1979), or Eagleson (1986).

30) As Professor Sadao Ando made relevant comments on my earlier draft, all these examples are cited from literary sources so that rhetorical factors should be taken into consideration in dealing with semantic coherence.
31) After the Meeting held at Aoyama Gakuin University Professor Hiroyuki Ito at Fukuoka Women's University advised the present writer to pay attention to the question whether or not rhyming may have a strong influence upon the productivity of the two nominal suffixes in Chaucer. When we treat Chaucer’s word formation it is natural that the problem arises of whether or not Chaucer’s word formation may be related to rhyming positions. In this sense Oizumi and Yonekura’s *Rhyme Concordance to the Poetical Works of Geoffrey Chaucer* will constitute a valuable contribution to the study of this question.

32) Görlach (1978: 93) remarks “There will still be a need for a study of Chaucer’s word-formation”. Sauer (1988) devotes much discussion to the productivity of compounds in Early Middle English. Middle English word formation and the productivity are discussed in Burnley (1992: 439-449). In his lecture “Middle English lexis and semantics” delivered at Doshisha University on May 21, 1993, Professor David Burnley also placed a stress upon a feature of the Middle English lexicon which is mirrored in the productivity of word formation processes in the language. Yonekura (1992) also deals with the significance of the study of English word formation, particularly of word formation in Shakespearean English.

33) Besides Oizumi’s *Chaucer Concordance*, we have Pickles and Dawson’s *Concordance to John Gower’s ‘Confessio Amantis’* and Saito and Imai’s *Concordance to Middle English Romances*, which contain a reverse-word list respectively. These concordances will also make a contribution to a historical study of English word formation.

34) I am sincerely grateful to Professor Akio Oizumi at Doshisha University, who is good enough to have informed me of this project.

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On the Productivity of the Suffixes -NESS and -ITY


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