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That Which is Brewed: An Etymology of Germanic Words for 'Beer'

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That Which is Brewed: An Etymology of Germanic Words for 'Beer'

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Abstract

That Which is Brewed: An Etymology of Germanic Beer Words

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Etymological scholarship on 'beer' has progressed to a point where one of two etymologies appears possible: either (1) a native, Germanic etymology or (2) a contact etymology from Latin. With no new empirical data available, scholars such as Fell (1975), Polomé (1996), and Murphy (1999) have moved beyond strictly linguistic factors in order to argue for one etymology over the other. What follows is a similar approach to the etymology of 'beer'. This paper similarly moves beyond the linguistic data to include historical, archeological, as well as cultural data in order to argue for a native, Germanic etymology. Unlike the previously mentioned scholars, however, this paper presents a new linguistic interpretation through which 'beer' (as well as other debatable etymologies) may be viewed: the Product-Process relationship.

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1. Introduction

Beer drinking is almost a national pastime in certain countries and its inclusion at athletic events and social gatherings stems from the beverage's long, rich history. Beer brewing exists on all levels from macro-breweries (such as Budweiser, Paulaner, or Asahi) supplying entire countries and continents to small homebrew kits available for personal use. Scholarship on beer and beer brewing is as far-reaching and extensive as the drink itself. However, there are still gaps in our understanding of the beverage and its history. While numerous ancient texts dictate how beer is to be brewed, stored, served, and even enjoyed,[1] a number of questions remain unanswered. These include: (1) the exact relationship between brewing and baking in the ancient world; (2) the composition, potency, and chemical nature of ancient beer; (3) and its exact role socially and culturally. In this paper, I address a different unknown: its etymology.

What follows is an analysis of the two primary competing etymologies of *beer*. This analysis (coupled with linguistic, cultural, and historical resources) will help paint a clearer picture of the history of the word, as well as establish a convincing etymology. In order to do so, it will be necessary to draw on resources outside of traditional diachronic linguistic methods. In order to understand the arguments for an etymology of beer better, an examination of the historical and cultural importance of the drink is required. I begin with a brief overview of the history of beer and beer brewing in the Fertile Crescent, before moving onto Europe. Diachronic scholarship on *beer*/*Bier* will follow in order to describe

[1] Depictions of beer brewing, storage, and drinking appear in hieroglyphics throughout ancient Egypt, religious scriptures, as well as mentioned specifically in numerous poetic texts, e.g., the *Epic of Gilgamesh* (Meussdoerffer 2009).

the current nature of the argument. Finally, a synthesis of the scholarship will attempt to provide a convincing etymology for the word.

2. History of Beer and Brewing

While it is beyond the scope of this report to provide a comprehensive history of the beverage, an understanding of the early history of beer is relevant to the etymological work that follows. Furthermore, while the history of brewing throughout the Fertile Crescent and Egypt is somewhat tangential to discussions on Germanic etymology, it serves to frame the rich history of brewing and beer. I therefore begin with the beverage's origins.

Meussdoerffer (2009: 3) describes the three prerequisites that were required for brewing; "(i) the availability of suitable grains, (ii) a controllable source of energy (i.e. a fireplace) and (iii) suitable brewing vessels (i.e. pottery or metal kettles." Moreover, knowledge of (and familiarity with) handling and processing grain would have been necessary before any controlled fermentation could have taken place. For example, an understanding that crushing (or milling) of the grains in order to release the sugars required for fermentation would have been necessary. Meussdoerffer (2009: 3) claims that these prerequisites would not have been met on a large scale earlier than 5000BC, as agriculture was still in its infancy before this date. The move from hunter-gatherer to agrarian societies was accompanied by a development of both harvest techniques and utensils, as well as attempts to adapt both flora and fauna for human needs.[2]

[2] Archeological evidence of farming tools and techniques, as well as evidence for yoked vehicles indicates a familiarity with agriculture and animal husbandry.

Various plants appear to have been selected and bred by these early peoples, including einkorn, wheat, and barley (Muessdoerffer 2009: 3). Meussdoerffer (2009: 3) further explains that the ease with which these grains could be utilized (i.e. cultivation, handling, and storage) coupled with their high nutritional yield, made them the subject of early human "interest and innovation." As a result, those areas where grain cultivation first flourished are where the first evidence for grain-based fermented beverages originates. Furthermore, this evidence dates as far back as the seventh millennium BC. Meussdoerffer (2009: 3) states that "the first pictoral and chemical evidence for grain-based fermented beverages from the near east dates from times when the last mammoths became extinct and the iceman 'Özi' traveled the Alps, namely from the fourth millennium BC." As the numerous artistic depictions and archeological evidence indicate its availability to (and usage by) all levels of society, it stands to reason that beer-like drinks were already at that point an accepted part of human life.

As civilizations evolved and advanced socially, so too did brewing technology, and, by extension, the quality of beer. While our current understanding of ancient brewing technology and techniques is sparse, that which is available is derived mostly from pictorial evidence and literary and administrative texts from the ancient Mesopotamian and Egyptian societies. Meussdoeffer (2009: 5) cites the *Hymn to Ninkasi,*[3] in which ancient brewing processes are detailed, includes some of the basic ingredients and brewing terms of that period. Brewing techniques, as well as the ingredients thereof, increased greatly in complexity and sophistication between the fourth millennium BC (late Uruk period) and

[3] This text is dated to the Old Babylonian period, i.e. around 1800 BC (Muessdoeffer 2009: 5).

the fifth century BC (New Babylonian Empire). Archeological evidence, as well as chemical residue analysis, indicates that what was originally only nine different types of beer, brewed from barley or barley malt, increased to up to 70 different types in Babylonian times, brewed from emmer, barley, and various intermediates thereof (Muessdoeffer 2009: 6).

The best evidence available for brewing and brewing techniques comes from the Egyptians. The Egyptians detailed the brewing process in hieroglyphs and pictographs on the walls of their tombs, and also supplied their dead rulers with clay figurines of laborers to ensure an ample supply of beer for themselves in the afterlife (Muessdoeffer 2009: 6). The first concrete evidence of brewing in Egypt was uncovered through excavations of two pre-dynastic sites dated at about 3500 BC, namely large, fixed vats supported by distinctive firebricks, which are considered to be the remains of ancient breweries (Muessdoeffer 2009: 7). Important to note is that evidence also indicates that brewing also took place in much smaller, moveable pottery vessels and was not limited to only large-scale production, but extended to small-scale, household production as well, further strengthening the argument that brewing was available to all levels of pre-industrialized society. Understandably, brewing technology continued to develop in Egypt over the centuries and the popularity of the drink grew along with it. With this understanding of the early beginnings of brewing and beer outside of Europe in hand, I move now to the history of brewing and beer within Europe.

Muessdoeffer (2009: 8) explains that "the cultivation of grain did not spread to northern Europe until the start of the Neolithic period, about 6000 years ago." As in the

Fertile Crescent, innovation and experimentation therewith followed shortly after (i.e. brewing). Furthermore, archeological evidence suggests that European brewing of beer developed independently and was, in fact, not passed down from the East. Nelson (2004) provides a wealth of evidence (including dating of ceramic evidence and ritualistic uses of beer at burial sites) to support such a conclusion. However the strongest evidence thereof is the variety of additives found to have been added to their beer through archeochemical analysis of containers, indicating a richly developed and distinctive brewing culture, independent of those in the Fertile Cresent. One such additive was gruit, a mixture of plants and seasonings used by European beer drinkers to flavor the beverage.

Muessdoeffer (2009: 8) explains that the climate offered challenges to brewing that the Babylonians and Egyptians would not have experienced, e.g. the air-drying of soaked cereals would not have yielded malt, but, instead, mold contamination. As a result, kilning was established by the Celts, as indicated by brewing sites found on the British Isles (Muessdoeffer 2009: 8). Unfortunately, the act of kilning is one of the few distinctive European brewing technologies that is known, and even less is known about specifically Germanic brewing technologies. What is known, however, is that they drank an appreciable amount of beer. This information comes from Tacitus' *Germania*, which states, "They make a liquid from barley or wheat, which, if fermented, resembles wine" (Muessdoeffer 2009: 9). While the exact nature of Germanic brewing is unknown, germinating cereals was certainly a step in the brewing process. For example, Dugan (2008: 10) describes the practice of placing grains at the far edges of storage pits in order to allow them to sprout. Furthermore, to avoid the aforementioned mold contamination due to the climate, these cereals were not dried, but rather "squashed immediately and the

resulting mash was fermented with airborne yeasts" (Muessdoeffer 2009: 9). Contact with the Romans in the third and fourth centuries greatly improved Germanic brewing, due primarily to the technologically innovative advances the Romans brought with them. These advances served to improve the brewing process, but also to move brewing out of the homestead into the more technologically and administratively advanced monastic breweries associated with mainland Europe today.

While the archeological and technological history of beer is fascinating, that alone did not contribute to its importance in the ancient world; the real driving force behind the spread of brewing and beer was its socio-cultural importance, for one its intoxicating and mood-altering affects. Hornsey (2003: 2) argues that mankind's discovery of (and experimentation with) psychotropic foodstuffs would have been "profoundly welcoming in an otherwise drear world." Intoxication, therefore, came to be considered both an important spiritual as well as social exercise. Spiritually, alcohol became a tool to attain a closer connection to the divine world.

Beer's high social status was undoubtedly a result of a combination of factors, but one major factor was its connection to the divine world. Many ancient cultures had a variety of "creation myths" connected to beer. The Egyptians, for example, considered the goddess Hathor and her junior partner Menqet the inventors of brewing (Dugan 2008: 9). Moreover, Moynihan (2012) cites a northern European myth in which Odin steals the vessel Óðrœrir, in which the "mead of poetry" was kept, during which some of it fell to Earth "bestowing the gift of creative inspiration on mankind's poets." With these creation myths in mind it is no surprise, then, that beer was a medium in order to "attain [a]

particular level of consciousness which may induce religious inspired ecstasy" (Polomé 1996: 101). This tendency to use foodstuffs for spiritual usage was by no means limited to alcohol and/or the Europeans (cf. the usage of psychedelic mushrooms, or of peyote in Native American religious rituals.)

Furthermore, beer (like all food and drink) became "a useful means of distinguishing and identifying individual cultures" (Nelson 2004: 3). Socially, beer drinking was viewed as an important communal exercise for many cultures, and an individual's participation therein served to indicate their "inclusion" in the society. It therefore stands to reason that beer production was present and thriving in even the earliest of complex societies. While the spiritual and mythological connotations of beer are important to note, they do somewhat belie the everyday, prosaic nature of the beverage and its preparation.

Nelson (2004: 88) speaks at length of the "everyday nature" of the beverage and its production. There are numerous factors that contribute to this understanding, with the primary being that the brewing of beer and baking of bread coevolved with one another (Dugan 2004: 5). Furthermore, there is scholarship to suggest that brewing preceded baking and even allowed for the production of leavened bread.[4] Regardless, baking and brewing were both common household practices in the ancient world,[5] not only due to the attractive affects of intoxication, but mostly because cereals were not only readily available to these peoples, but an essential foodstuff. As a result, both bread and beer were staple

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[4] Dugan (2004) provides a brief, but concise overview of this and other arguments concerning the relationship between brewing and baking.

[5] Evidence therefore ranges from the archeological/archeochemical analyses mentioned earlier, to cultural, as well as literary allusions: For example the aforementioned Egyptian goddess Hathor (also the goddess of fertility) and Rumpelstilzchen's song in the fairy tale by the Grimm brothers, which begins with, "Heute back ich, morgen brau ich…" ('Today I bake, tomorrow I brew').

food items for ancient societies. Nelson (2004: 64) provides numerous accounts from ancient explorers who traveled to northern Europe and the Isles that detail some of the practices of these peoples. One such account from Pytheas describes the people as having "prepared both food and drink from grain and honey." It is no coincidence that these items be mentioned together, considering the frequency with which they were produced. Nelson (2004: 64) explains that these people were all "avid beer drinkers." As such, it would have been necessary for brewing to have taken place on all levels socially (both at larger scale breweries as well as smaller home scale brewing). Kunze (2004: 19) notes that "[beer] was brewed as daily nourishment by the women, since baking and brewing were women's work in all primitive cultures." Nelson (2004: 60) notes that archeological evidence has uncovered ancient homesteads composed of (among others) storehouses and a secondary structure identified as a brewery. This building contained various stone weights (presumably used to weigh cereals) as well as separate rooms within, one for the storage of grain, another (with access to heating elements) for the production of beer, and a third for cooling and storage. This wealth of evidence provides every indication that the brewing and consumption of beer was a principle part of these peoples. Having briefly presented a short history of the scholarship on the history of the beverage, I move now to scholarship concerning the etymology of 'beer'.

3. Etymological Scholarship

'Bier' is well attested back to Old High German and its dialects (Germ. *Bier* < MHG *bier* < OHG *bior*; cf. OE *beor,* OS *bior,* OFri. *biar, bier*). These forms, in turn, are often derived from the reconstructed WGmc. **beura*- 'beer' (Kluge/Seebold 2002: s.v. *Bier*). Etymological

scholarship on beer is traditionally divided on whether the reconstructed form WGmc. **beura*- is a loanword or derived from a Germanic root. All scholarship on the subject admits that the etymology is uncertain and that these two proposals are the most reasonable. A common proposal for the loan argument argues that WGmc. **beura*- goes back to VLat. *biber* 'a drink, beverage', which in turn developed out of Lat. *bibere* 'to drink' (Kluge/Seebold 2002: s.v. *Bier*). Those in favor of a Germanic etymology (e.g. Lloyd et al. 1988, Polomé 1996, Murphy 1999, Kluge/Seebold 2002) usually propose a connection to the roots for Germ. *brauen* 'to brew' and/or Eng. *barley*. What follows will be a close examination of these proposed etymologies and an explanation for why a connection to Germ. *brauen* is the most attractive.

3.1 WGmc. **beura*- From a Latin Loan

A substantial amount of the early scholarship on the origins of beer favored an etymology derived from VLat. *biber* (< Lat. *bibere*). The *Deutsches Wörterbuch* by Jacob and Wilhelm Grimm, Kluge/Seebold, and the Duden have (at one point or another) supported this etymology.[6] This etymology is attractive, primarily because of the role Christian monasteries played in the history of beer, but also due to the possible phonological and morphological processes (attested in other forms) required to complete the change .

[6] Grimm's dictionary has not been revised and (as such) still cites this etymology. Duden maintains that this is the most reasonable etymology, and Kluge cited this etymology as the most reasonable through their 21st edition (1975), but has since revised their proposal.

Historically, while early Christians tended to scorn beer and beer drinkers, the later church had slowly become influenced by contact with the avid-beer drinking Germanic tribes and a more tolerable approach to the beverage followed. Muessdoeffer (2009: 10) specifies, however, that "…the documented recognition of beer by the church only came in the year 816 at the synod of Aachen…it was decided that a monk should receive daily one beaker (*hemina*, 0.273l) of wine or, where no wine was available, twice as much (one *sextarius* 0.546l) of 'good beer'." It was around this time that monasteries (combining the local love of beer with Roman innovation and technology) had become the centers of brewing and beer innovation. Muessdoeffer (2009: 10) cites an outline drawn of a Carolingian monastery sometime around 830 on which three different brew houses are designated. Furthermore, monastic breweries were the first to document the use of hops in beer as a bittering agent, although its usage in beer was not limited to monastic brewing. Monasteries then came to play a very important role in the greater history of beer and brewing.

As such, attempts to derive an etymological link from WGmc. **beura*- and VLat. *biber* 'drink' (< Lat. *bibere* 'to drink') follow this same logic (i.e., the influence that these monasteries had on brewing/beer carried over into the language and was adopted as the standard denotation for the beverage.) The phonological/morphological arguments for this are elaborated in Lloyd et al. (1988: s.v. *bior*). According to Lloyd et al. (1988: s.v. *bior*) Latin *bibere* 'to drink' had attested nominalizations as far back as the 6th century, which carried the meaning of 'drink, a drink' (cf. OFr. *beivre*, aprov. *beure* 'drink', norm. *beire* 'cidre'). Lloyd et al. (1988: s.v. *bior*) contend that WGmc. **beura*- could have come from a

Romance form **bever(e)* and undergone a possible vocalization of *v* > *u*, or come from a form that had already undergone the vocalization (**bevere* > **bevre* > **beure*).

While attested forms of the nominalization do appear, according to Lloyd et al. (1988), Murphy (1999: 183) notes that these forms do not appear to have been "commonly evidenced." Murphy (1999: 183) further points out that a plural form *biberes* "would have been scarcely distinguishable from meaning 'drinkers' instead of 'drinks'." Lastly, he observes that the presence (and "ubiquity") of *cerevisia*, "a derivative of *ceres* used everywhere in the Latin monastic world" to denote a grain based alcoholic beverage, makes this etymology increasingly less attractive, as it is unclear which form would have taken precedence (Murphy 1999: 183).

Arguments for the WGmc. **beura*- < Lat. *biber* etymology beyond the phonological usually concern themselves with the supposed composition of early beer (more specifically OE. *béor*), as described in ancient poetry and prose. Fell (1975) compares and contrasts the four most popular alcoholic drinks available to the Anglo-Saxons (OE. *win*, *medu*, *ealu*, and *béor*) in an attempt to derive their true meaning and original composition. While *win, medu,* and *ealu* translate satisfactorily as 'wine', 'mead', and 'ale' respectively, Fell (1975) concerns herself with the apparent disjunction between beer and OE. *béor.*[7] Fell (1975) comes to the conclusion that due to *béor* having been described as a sweet, rather powerful drink when compared with *ealu* 'ale', it could not have been made from grains, and therefore could not be derived from a Germanic root for barley (**bewwa*-). Among the

[7] "The uncertainty about the origin of the word 'beer' must prompt the question whether an automatic assumption that the meaning of 'beer' and all its cognates is and was 'a drink made from barley' has not affected the conclusion of those philologists who pursuer an etymological link" (Fell 1975: 77).

missteps committed by Fell (1975), e.g. her overreliance on poetic texts as etymological resources, the greatest is assuming that a connection to PGmc. **bewwa-* 'barley' is the only Germanic one. Fell (1975) does not attempt to address the other (much stronger) connection to PGmc. **brewwan* 'to brew' (< PIE. **b^hreuh_1* 'to boil, brew') explored below.

Polomé (1996: 100) accurately describes the loanword argument as a whole, in that "it stands and falls with the assumption that hopped beer was unknown in the Germanic world until the monks introduced it in the Middle Ages." As noted above, while the monks were the first to *document* the usage of hops in beer, they were far from the first to actively do so. Muessdoeffer (2009: 11) points to a wealth of archeobotanical evidence for the usage of hops as a bittering agent in beer outside of monasteries, as well as Polomé (1996: 100) who cites an archeological discovery of "a sizeable quantity of hops besides barley in a dwelling occupied between the first and fourth century A.D."

While the role monasteries had in the history of beer cannot be emphasized enough, Murphy (1999: 183) explains, "the monks, however, were taking up a trade that had long preceded them." It seems unlikely to assume that the monastic brewing/beer traditions would have been influential enough to cause those peoples to adopt a loanword for what would have been a stable, high frequency word such as beer. Furthermore, if the monastic influence had been powerful enough to influence the term for the drink, would that not have been an environment in which the term for the process (*brauen* 'to brew') would have equally been affected? Regardless, while the process of vocalization required to form WGmc. **beura-* from VLat. *biber* is well attested (cf. Germ. *Föhn* 'foehn wind' < VLat. *faōnius*

< Lat. *favōnius*), the historical and cultural evidence appears to favor a Germanic etymology.

3.2 WGmc. **beura-* From Germanic Roots

Arguments for a Germanic etymology traditionally attempt to establish a connection between Germ. *Bier* (MHG. *bier* < OHG. *bior* < WGmc. **beura*-) and the PIE root **b*^{h}*reuh*$_{1}$ 'to boil, brew' (cf. Lloyd et al. 1988, Kluge/Seebold 2002, Kroonen 2013).[8] Lloyd et al. (1988) offer no value judgment regarding the validity of this proposal, although Kluge/Seebold (2002) and Kroonen (2013) both find this etymology the most attractive, primarily due to the ease with which the phonological change took place.

Lloyd et al. (1988: s.v. *bior*) explain that in order to argue for a Germanic etymology it is necessary to first clarify whether the last consonant of the West Germanic root was originally **r* or **z* (i.e., **beura*- or **beuza*-). WGmc. **beuza*- compares nicely with Sw. *buska* 'freshly brewed beer' (cf. Pokorny 1959: 98-102); Kroonen (2013: 62), however, contends that a reconstruction with **z* cannot be maintained, as it would have yielded ON. ***býrr* (cf. ON. *bjórr* 'beer') by *R*-mutation. Therefore the most likely reconstruction is with final consonant **r* (i.e., WGmc. **beura*-).

Lloyd et al. (1988: s.v. *bior*) offer two possible phonological explanations for this etymology. The first describes WGmc. **beura*- as a result of epenthesis from an earlier PGmc. **berua*- (cf. Möller 1879, Kluge 1989). The second interprets WGmc. **beura*- as a

[8] Lloyd et al. (1988) and Kluge/Seebold (2002) mention another possible connection (as well as scholarship thereon) to an early Germanic root for *barley* (**bewwa*-, ON. *bygg* 'barley, grain' (Kluge/Seebold 2002: s.v. *Bier*)). However, due to lack of elaboration on this etymology, I limit my argument to scholarship on the etymology proposed above.

result of dissimilation of the first *r* in a PGmc. form **breura-* (cf. Osthoff 1882, Bezzenberger 1883, Holthausen 1952). While Lloyd et al. (1988: s.v. *bior*) view both of these explanations as "questionable," Kroonen (2013: 62) believes that dissimilation is the most attractive explanation, because this dissimilated form "can straightforwardly be derived from PGmc. **brewwan-* 'to brew' with a *ro*-suffix (cf. Gr. *βρυτος* 'fermented liquor made from barley, beer')." Kluge/Seebold (2002: s.v. *Bier*) note an additional relationship between the possible Proto-Germanic attestations for brew (**bʰreu-*, **bʰerw-*) and Gr. *βρυτος* as well as Lat. *dēfrutum* 'must', in that all are examples of full-grade IE ablaut in the second syllable. What is important to note here is that these explanations offer as compelling a phonological argument for this connection as we have for the aforementioned WGmc. **beura-* < VLat. *biber*. Therefore, with all phonological considerations being equal, what remains is to establish this etymology using other considerations and on other linguistic levels.

The first advantage to considering this etymology is that it allows for a dismissal of the claims made by Fell (1975) and echoed by others, e.g. Hornsey (2003), concerning the nature of the beverage. Deriving WGmc. **beura-* from PGmc. **brewwan-* 'to brew' (< PIE. **bʰreuh₁*) instead of PGmc. **bewwa-* 'barley, grains' yields a connection to the process of brewing instead of the ingredients thereof. By focusing on this connection, it allows us to acknowledge that early beer was not limited to only barley or other available grains, but *could have* contained other various ingredients as well. What Fell (1975) does not address in her arguments on the sweeter-than-ale nature of early beer, is that early brewing was far from the refined process that it is today and residual sugars left over from early fermentation techniques would have made the drink *much* sweeter than what we would

understand beer to be today or indeed any fermented drink. Furthermore, today's beer benefits not only from modern technology in that regard, but also from the (now standard) usage of hops as the sole bittering agent. Long before hops became the standard bittering agent in beer, beer drinkers flavored their drinks with a combination of herbs and seasonings called 'gruit' (Germ. *Grütze*) in order to balance out the sweet nature of the drink. Mosher (2009: 11) explains that "chemical analysis of scrapings from Bronze Age burials has turned up barley, honey, cranberries, and two herbs, meadowsweet and bog myrtle." It is impossible to say at which point (or in what quantities) these various ingredients were added in the process from production to consumption. However, the process would have remained unchanged. Therefore, even granting the assumption that early beer was produced from whatever early brewers happened to find lying outside on the ground (which, according to historical scholarship, was not the case) it would not affect a derivation of WGmc. **beura*- 'bier' from the process PGmc. **brewwan*- 'to brew' (< PIE. **bʰreuh₁*).

The second advantage to this etymology is that WGmc. **beura*- 'bier' would join an already substantial list of attested derivations of the PIE root **bʰreuh₁* 'to boil, brew', which include Germ. *brauen* 'to brew', Eng. *to brew*, Germ. *brühen* 'to infuse in hot water,' and Germ. *brodeln* 'to brew, simmer'. These derivations certainly have more in common with a reconstructed PIE. **bʰreuh₁* in that they are typologically all verbs, as well as being closely semantically related (that is to say, these verbs all describe a process, in which ingredients are added to a concoction and then heated/cooked.) However, there are also a number of nominal derivations in which beer would fit semantically including (but not limited to):

Eng. *broth* (< OHG. *brod*[9]), Germ. *Brühe* 'broth', Germ. *Brei* 'pulp, mash', and finally Germ. *Brot* 'bread'. While each of the derivations follows its own etymological path, they are all potential derivatives of PIE. *b^hreuh_1. From the above mentioned glosses, Germ. *brauen* (Eng. *brew*) is the easiest to derive from PIE. *b^hreuh_1 phonologically and semantically, i.e. Germ. *brauen* < MHG. *briuwen*, *brūwen* < Gmc. **breww-a-* < *b^hreuh_1 (Kluge/Seebold 2002: s.v. *brauen*). However, the others appear to work as well. For example, Kluge/Seebold (2002: s.v. *brühen*) describes Germ. *brühen* as "certainly" belonging to the family of words derived from PIE. *b^hreuh_1 'to boil, brew' (either as an independent extension (< MHG. *brüejen* < Gmc. **brō(w)-ja-*), or (more likely) as a lengthened IE-ablaut generation to **breww-a*, so too its nominalization Germ. *Brühe* (< MHG. *Brüeje*). Similarly, Germ. *brodeln* shares the same relationship with PIE. *b^hreuh_1 (Germ. *brodeln* < MHG. *brodelen*) as well as its aforementioned, extinct nominalized OHG form *brod* (Kluge/Seebold 2002: s.v. brodeln). Germ. *Brei* 'pulp,mash' (< MHG. *brī(e)* < OHG. *brī(o), brīwo*), while potentially stemming from an (as yet unsubstantiated) extension *b^hr-ei-w-, is similarly derived from the same PIE root (Kluge/Seebold 2002: s.v. *Brei*). Of the above derivatives, Germ. *Brot* is the only with which Kluge/Seebold (2002) includes a caveat. While Kluge/Seebold (2002: s.v. Brot) admit that the typical etymology thereof (Germ. *Brot* < MHG. *brōt* < OHG. *brōt* < Gmc. **brauda-*) is as a derivative of PIE *b^hreuh_1 'to boil, brew', one must consider, "daß kein anderes Wort für Brot (in irgendeiner Sprache) dieses Benennungsmotiv zeigt." Lloyd et al.

[9] OHG. *brod* 'broth' is no longer extant in German after having merged with OHG. *brôt* 'bread' (-> Germ. *Brot*) due to their indistinguishable nature phonetically ([bro:t]). The difference still exists in English *broth*/*bread* due to their phonetic distinction. Presumably Germ. *Brühe* 'broth, soup' filled the semantic gap left by the loss.

(1988: s.v. *brôt*), on the other hand, seem content with this derivation and offer no caveat against it.

The Oxford English Dictionary offers one explanation for the aforementioned potential derivatives. The OED (s.v. *brew*) suggests that the common PIE root *b^hreuh_1 had a much wider semantic range than simply 'brew, or boil', i.e. 'make a decoction, infuse'. A semantic narrowing of PIE *b^hreuh_1 in either direction would adequately describe the variance of the similar, yet distinct derivatives mentioned above.

Another argument for accepting this etymology means that it would establish a relationship between beer (the product) and PIE. *b^hreuh_1 'to boil, brew' (the process) that is attested in numerous other etymologies. Some other etymologies that share this (what I have labeled as) Product-Process relationship include: Germ. *Mehl* 'flour', Germ. *Teig* 'dough', Germ. *Futter* 'fodder', as well as the above mentioned Germ. *Brei* 'pulp, mash' and Germ. *Grütze* 'gruit'. Germ. *Mehl* 'flour' (< MHG. *mel (-wes)* < OHG. *mel(o)* < PGmc. **melwa*-) is a derivative of the PIE root **mel*- 'to grind', from which the German verb *mahlen* 'to grind' is also derived (Kluge/Seebold 2002: s.v. *Mehl*). Likewise, Germ. *Futter* 'fodder' (< MHG. *vuoter* < OHG. *fuotar* < PGmc. *fōdra*-) is derived from a PIE root form *$pā$-t-/$pə$-t- meaning 'to nourish'. Furthermore, Germ. *Teig* 'dough' (< MHG. *teic* < OHG. *teig* < PGmc. **daiga*-) displays the same relationship with its PIE root *d^heig^h 'to knead' (Kluge/Seebold 2002: s.v. *Teig*). Germ. *Grütze* 'gruit' (< MHG. *grütze* < OHG. *gruzzi* < WGmc. **grutjō*), the mixture of plants and seasonings used by early beer drinkers, is another prime example of this relationship, as it is traditionally derived from PGmc. **greut-a*- 'to grate, grind' (Kluge/Seebold 2002: s.v. *Grütze*). Appropriately, Kluge/Seebold (2002: s.v. *Grütze*)

contend that an early nominalized derivation thereof (here WGmc. **grutjō*) would have meant approximately '*Grobgemahlenes*'. Following this logic, beer's WGmc. reconstruction **beura-* would have also displayed this tendency and meant something approximate to '*Gebrautes, Gegorenes*'.

Finally, while the etymologies that display the Product-Process relationships are not limited to those listed above, the ones chosen share additional similarities with beer, in that they are (1) all related domestically and (2) are attested culturally and historically. While it might be a stretch to consider the above terms core vocabulary items, their historical and cultural importance cannot be overemphasized. Due to the importance of livestock for the Indo-Europeans, acknowledging Germ. *Futter* as a key vocabulary item requires no stretch of the imagination. Even though agriculture took a back seat to animal husbandry, it is clear that agricultural cultivation did exist and was practiced by the Indo-Europeans. Fortson (2004: 37) explains, "…words for grain, for threshing, and for grinding grain, and for some specific grains can be reconstructed." Furthermore, "…such cultivation is strongly suggested by the fact that that grains have a prominent role in the mythology, folklore, and ritual practices of many IE traditions" (Fortson 2004: 37). What this means for an etymological argument is that the above mentioned terms (*Mehl*, *Teig*, *Brei*, and *Grütze*), could equally be viewed as key vocabulary items and the Product-Process relationships they display could conceivably be seen as part of a pattern rather than an exception. As mentioned above, this pattern is not limited to *Mehl*, *Teig*, *Brei*, and *Grütze*. Fortson (2004: 37) points out that "doors were probably kept shut with pegs of some kind, referred to by a word whose descendants variously mean 'key', 'peg', or 'nail' and that is derived from the verb meaning 'to close'." Likewise, "words for 'roof' in some IE languages are cognate with

words for 'thatch' in others, all of them derived from a verbal root meaning 'to cover'" (Fortson 2004: 37). Therefore, since terms for cooking, baking, and boiling can equally be constructed, it would be unremarkable for the relationship between WGmc. **beura-* 'beer' and the reconstructed PIE root **$b^h reuh_1$* 'boil, brew' to mirror that of (for example) 'peg' and 'to close'. Coupling this pattern of well-attested, key vocabulary items and the Product-Process relationships they display with an understanding of the importance of brewing and beer consumption for the Indo-Europeans, an argument can be made for including *beer* as equally key a vocabulary item as any other presented thus far. Hence, understanding WGmc. **beura-* as a derivation of PIE **$b^h reuh_1$* 'to boil, brew', and (as such) adhering to the Product-Process pattern described requires no great stretch of the imagination.

4. Conclusion

The purpose of this analysis was to further the argument by providing material beyond the phonological to assist in establishing this etymology. While the cultural and historical analyses included may, at times, have appeared tangential, they offer one additional lens through which a word's history may be viewed. As expressed earlier, when all phonological approaches and possible reconstructions are viewed equally, and all extant linguistic data has been considered, it is necessary to move beyond the linguistic in order to further the argument. In the case of this etymology (as opposed to other debated etymologies) there is a plethora of cultural and historical evidence available to better understand the history of *beer*. I echo Durkin (2009: 2), who states that "an individual word history will almost never be explicable in terms of only one linguistic level." What drives this argument is a unification (and understanding) of the linguistic data available

(not only about 'Bier', but including other reconstructions and etymologies as presented above), as well as the historical, archeological, and cultural scholarship on the beverage.

What I hope to have accomplished is (above all) to have provided a convincing argument for viewing beer as the Germanic derivation of the PIE root *b^hreuh_1, instead of as a loan. While debating the merits of a native etymology over a contact etymology may, at first glace, appear to be an inconsequential scholarly exercise, the implications thereof are of a much greater value. Mailhammer (2013: 9) argues that the difference between a native etymology and a contact etymology makes little difference "from a purely historical perspective…because a borrowed word was also created at some point, albeit in a different language." However, the difference between the two plays a much greater role when viewed from "an investigative viewpoint" (Mailhammer 2013: 9). "A word with a native etymology was always transferred by native speakers of one language to native speakers of the same language" and, as a result, "is characterized by a more or less homogenous ecology" (Mailhammer 2013: 9-10). A contact etymology, on the other hand, "is likely to be more complex and more volatile" and would not enjoy the same level of ecology (Mailhammer 2013: 10). Mailhammer (2013: 10) uses the "telephone game" as an analogy, in which one could reasonably expect the message transferred between participants to change more drastically if the message were a loan, i.e. a word with contact etymology, as opposed to a native one. Mailhammer (2013: 10) sums up the argument as follows: "While native transmission can often display surprising results and does not always follow completely regular patterns, this is all the more true for contact transmission, where not only unexpected sound substitutions and unexpected ways of reanalysis occur, but where there can be a great amount of inconsistency involved." This is not to say that a native

etymology is inherently *better* than a contact etymology in any linguistic sense, however, methodologically, establishing a native etymology allows us to more effectively formulate arguments concerning the nature of language change and better assist in recovering as much of the proto-language as possible.

Furthermore, I hope to have also provided Product-Process as another "linguistic level" with which other debatable etymologies may be analyzed. What remains is to apply this tool to other debatable reconstructions and derivations and look for potential Product-Process relationships. For example, Germ. *Saft* 'juice' (cf. Eng. sap) (< MHG. *saft* < OHG. *sa(p)f* < WGmc. **sapi*-) is one where two similar possibilities exist as do in beer. Germ. *Saft* could be a potential phonemic variation of Lat. *sapere* 'to taste', or a derivative of the reconstructed PIE root **sewə*- 'to squeeze (out)'. Here a consideration of the Product-Process relationship may provide a new lens through which to view the problem.

Considering a Product-Process relationship, however, should never replace hard linguistic data. That is to say, empirical coverage should always take precedence over theorized conceptual relationships (i.e. Product-Process). Although in this case the Product-Process relationship takes empirical historical, archeological, cultural, and linguistic data into account, it is limited by its reliance on a *perceived* relationship between those elements. This, however, is not an uncommon approach to etymological work, and I follow in the footsteps of others, e.g., Murphy (1999) and Polomé (1996), who have also moved on to extra-linguistic resources (e.g. historical, textual, and/or cultural sources) to further their argument. While I believe I have demonstrated that Product-Process is an attractive approach to consider in etymological work, as Product-Process is applied to

other etymologies, or as further diachronic work is accomplished and reconstructions confirmed and accepted, this concept may ultimately prove to play a smaller role in the debate. However, as is the case with 'beer', with all available empirical data considered equal, Product-Process may serve as one more method through which reconstructions can be approached.

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