

Malleability of Meaning and Metaphorical Extension: The Case of HEAD and FACE in Thai and Korean

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Abstract—Recent comparative research on HEAD (Rhee et al., 2025) and FACE (Khammee & Rhee, 2022) in Thai and Korean has shown that even the lexemes denoting body-parts of perceptual salience and functional indispensability may have both commonalities and theoretically significant differences across languages. It has been argued that the differences have derived from the idiosyncratic disparities in conceptualization of the body-parts in the course of metaphorical extension of their meanings, as well as the differences in lexicalization strategies. Previous studies were largely based on semantic designations provided by dictionaries. However, a delay exists between dictionary designations and emergent word meanings created by speech communities, in accordance with the well-known fact that words change in meaning over time as language users innovate new meanings and cease using words for certain meanings. In light of this phenomenon, the present study investigates such gaps in terms of innovation and obsolescence, based on an extensive picture-based survey on Thai and Korean monolinguals. The findings show that new meanings are created based on specific metaphorical strategies favored by the language. More importantly, there are many instances where the dictionary meanings are overridden by the survey participants' recognition patterns.

Index Terms—semantic fluidity, Thai, Korean, HEAD, FACE

I. INTRODUCTION

Rhee et al. (2025) and Khammee and Rhee (2022) have observed that HEAD and FACE are among the most perceptually-prominent and functionally-essential body parts, and thus constitute convenient and effective reference points for analyzing embodiment as reflected in language (Heine, 1997; Kövecses, 2000; Lakoff & Johnson, 1980; among others). Words may have different inventories of semantic designations because speech communities often show idiosyncratic behavior in polysemization. In addition, word meanings change over time as the conceptualization patterns of the speech community shift in response to diverse changes in cognitive operations and physical or social environments. Furthermore, semantic designations in dictionaries may not fully represent contemporary language speakers' semantic intuitions because of the inherent lag in dictionary definitions, with the result that meanings often have varying degrees of archaic flavor and, at a given time, do not yet sanction new meanings already in circulation. This state of affairs shows clearly that meanings are fluid and malleable, and at the same time the directions of extension may have conceptual motivations.

The objectives of this paper are threefold: (i) to identify the patterns of recognition of HEAD and FACE of objects, based on survey data of native speakers of Thai and Korean, (ii) to compare the aforesaid survey responses with existing dictionary definitions, and (iii) to analyze the survey responses to highlight the commonalities and differences manifested in the semantic extension and weakening of HEAD and FACE.

II. LITERATURE REVIEW

There has been continuous interest in the semantic structure of HEAD across languages (Al-Shuaibi et al., 2025; Caesar

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et al., 2024; Kraska-Szlenk & Wójtowicz, 2023; Sirait et al., 2022; Zibin et al., 2024). The semantic structure of HEAD lexemes in Korean, i.e., *meli* and *taykali*, has been researched by Koo (2009) and Lim (2016), who analyze *meli* as having semantically extended from Human to Animals, Plants, Objects, Space, Time, and Classifier. Most extant studies on Korean HEAD, however, address the lexeme in conjunction with other body-part terms, and thus their treatment of HEAD is necessarily brief. The Thai HEAD lexeme *hūa*, by contrast, has been understudied. One example is Lu and Park (2019), who analyze the polysemy structure by means of the idealized cognitive model (Lakoff, 1987). Comparative studies between Korean and Thai are even fewer in number. A recent study by Rhee et al. (2025) investigates the semantic extension patterns of HEAD in Korean and Thai, and shows the similarities and differences in metaphor types, noting that Korean tends to favor vertical configuration, whereas Thai tends to favor horizontal configuration.

Studies of FACE are also underrepresented. Lim (2016) observes metaphorical extension of the Korean lexemes denoting ‘head’, ‘face’, ‘eye’, etc. into other semantic domains. Studies on Thai FACE, i.e., *nāa* ‘face’, are much more underrepresented, with a notable exception of Park (2017). A more recent and comparative study by Khammee and Rhee (2022) argues that the semantic extension patterns in Korean are largely restricted while those in Thai are more versatile.

In sum, except for Rhee et al. (2025) for HEAD and Khammee and Rhee (2022) for FACE, most studies of either HEAD or FACE are brief, often to the point of being cursory in discussing other body parts, and further, they address the lexemes in either Thai or Korean independently, never comparatively. Furthermore, extant studies are primarily based on the semantic designations found in dictionaries. However, as previously alluded to, word meanings exhibit considerable variability at both individual and communal levels, and dictionaries are unable to represent the current states of affairs of contemporary speakers of Thai and Korean, which can only be examined through investigating individual speakers’ uses of a language. This state of affairs in the two languages merits further exploration, hence the rationale of the present study.

III. THEORETICAL BACKGROUND AND RESEARCH METHODS

The theoretical framework for this study is the theory of metaphor and metonymy as pioneered by Lakoff and Johnson (1980), which revolutionized cognitive linguistics by arguing that metaphor is not merely a literary or artistic device, but a fundamental mechanism of the human mind that structures how we think, act, and perceive the world.

The present research uses qualitative and quantitative approaches. For the qualitative approach, theories of metaphor and polysemy are adopted. For the quantitative approach, data collected from dictionaries, lexica, and an online survey are used. The basic structure of the survey is as follows. Two groups of native speakers of Thai and Korean, 30 persons each, were selected on a volunteer basis. These groups consisted of 22 females, 4 males, and 4 “other genders” for the Thai group, and 23 females and 7 males for the Korean group. In order to avoid influencing the results via inadvertent language contact, respondents in each group were restricted to those who had never studied the other language, and who had never stayed in the other country for more than three months. To ensure that the data would reflect contemporary usage among young adults, who are active, creative language users, respondents were restricted to between 18 and 25 years of age. The survey questions were intended to examine recognition of dictionary denotations, with 49 picture-based questions for HEAD and FACE each. They were written in each respective native language of the survey respondents, but they were essentially identical as they were translations of a prototype in English. Surveys were administered online without time limitation, and respondents selected one of four choices for each question.

The 49 questions were arranged in seven ontological categories: Animals, Events, Geological Formations, Institutions/Groups, Objects, Plants, and Notations. The researchers selected the objects in these categories based on the traditional meanings of HEAD and FACE, and did not attempt to cover all meanings exhaustively, because some of the meanings cannot be graphically represented with accuracy, e.g., intelligence, disposition, wisdom, etc. for Thai HEAD; duty, in front of (preposition), make progress (verb), etc. for Thai FACE; sum of money, pejorative (suffix), etc. for Korean HEAD; and reputation, familiarity, expression, etc. for Korean FACE.

IV. RESULTS

A. HEAD in Thai

A notable result from the survey-based analysis is that a number of survey respondents departed from the ‘established’ semantic designations in authoritative dictionaries in their choice of meanings.¹ For instance, some of those designations were overridden by the meanings the survey respondents chose, and were tied with or challenged by new surveyed meanings (i.e., 30.0% or more respondents chose a different meaning). These are shown in Table 1.

¹ The major reference is the *Thai Royal Dictionary*, serviced online but with content dated 2011. The present authors’ native intuition suspects that this resource failed to reflect the state of affairs at the time of publication. For descriptive purposes, however, the present research draws on the dictionary designations conservatively in order to avoid arbitrary and frivolous application of the authors’ intuitions. Similarly, there seems to be a regionality issue for certain ‘head’-interpretations, since most, if not all, student participants were from northern Thailand, where, for example, mountains tend to exhibit sharp peaks, which made clear perception of ‘head’ difficult for the respondents.

TABLE 1
INCONSISTENCY IN DICTIONARY-BASED AND SURVEY-BASED MEANINGS OF HEAD IN THAI

	Q No.	Target Object	Dictionary Semantics	Survey Response %	Dominant/Emerging Semantics in Survey	Survey Response %	Primacy
a.	#26	electric fan	④ (no head)	36.7%	③ the top round unit	43.3%	overridden
b.	#40	cabbage	③ the leafy bunch	33.3%	② bottom, joining root	40.0%	overridden
c.	#9	event timeline	① preparatory stage	40.0%	④ (no head)	53.3%	overridden
d.	#25	medicine	② main ingredients	3.3%	④ (no head)	90.0%	overridden
e.	#35	roads	③ converging/diverging point	10.0%	④ (no head)	56.7%	overridden
f.	#36	skirt	① the uppermost part	43.3%	④ (no head)	56.7%	overridden
g.	#37	suspension bridge	① end-part of bridge	33.3%	④ (no head)	43.3%	overridden
h.	#39	trumpet	① bell	40.0%	④ (no head)	50.0%	overridden
i.	#14	mountain	④ (no head)	50.0%	② top part	50.0%	tied
j.	#21	car	④ (no head)	43.3%	③ front end part	43.3%	tied
k.	#8	business timeline	④ (no head)	43.3%	① preparatory stage	40.0%	challenged
l.	#12	river in mountain	④ (no head)	53.3%	① origin	33.3%	challenged
m.	#10	typhoon series	④ (no head)	46.7%	① one whole typhoon	30.0%	challenged
n.	#24	table	④ (no head)	56.7%	② corner of table	33.3%	challenged
o.	#11	mountain range	④ (no head)	53.3%	② highest mountain	36.7%	challenged
p.	#44	tree	④ (no head)	60.0%	③ top part	36.7%	challenged
q.	#45	rose	④ (no head)	56.7%	① flower	40.0%	challenged
r.	#43	rice plant	④ (no head)	56.7%	① panicles	40.0%	challenged
s.	#17	baseball bat	③ barrel	43.3%	④ (no head)	40.0%	challenged
t.	#28	hammer lying	② face	50.0%	④ (no head)	43.3%	challenged
u.	#47	Chinese character	③ top radical	36.7%	② low-left corner	30.0%	challenged

For the eight items (a) through (h), more survey participants indicated a part of the picture different from that of the established meaning, or chose non-applicability of the term. Of these, in the first group, (a) ‘electric fan’, which had no ‘head’ in a traditional sense, now has a head in the form of the top round unit containing the motor, fan blades, and protective grill. Obviously, this emergence of a new meaning is an instance of semantic extension based on HEAD IS LUMP and HEAD IS SPHERE (note: these property statements are the same as the metaphors LUMP IS HEAD and SPHERE IS HEAD, respectively). Item (b) ‘cabbage’, for which HEAD originally referred to the leafy bunch, now has a ‘head’ referring to the hard knot near the ground joined to the root. This is interesting because attention has switched from the ‘top’ round, edible part of the plant to the ‘solid or dense’ inedible part of the cabbage, triggered by the metaphor HEAD IS SOLID with reference to the anatomical fact that a head is encased in a hard skull. While the metaphor HEAD IS LUMP is more volume-focused, the metaphor HEAD IS SOLID is more density-oriented. Similarly, the other items (c) through (h), i.e., ‘event timeline’, ‘medicine’, ‘roads’, ‘skirt’, ‘suspension bridge’, and ‘trumpet’, have lost their traditional meanings. As Table 1 shows, in many cases, the parts that have traditionally been referred to as a ‘head’ lack the intuitive connection to distinctive features associated with a head. For instance, item (f) a skirt, the ‘head’ of which is traditionally the uppermost part (near the waist line), was considered by many respondents to have no head, confirming that, in Thai metaphors operating in HEAD extension, the HEAD IS TOP metaphor is not among the favored ones (Rhee et al., 2025, p. 4042; cf. however, some contradicting findings below). Item (h) ‘trumpet’ is interesting because traditionally the head of a trumpet referred to the bell (i.e., the flared, wide, cone-shaped end), but now trumpet is considered by many as having no head.

The second group, items (i) and (j), ‘mountain’ and ‘car’, traditionally had no ‘head’, but now have a head, i.e., the peak of a mountain and the front end of a car. The conceptual motivations behind the emergence of these new meanings are thought to be the HEAD IS TOP metaphor for mountains, and the HEAD IS FRONT (in linear configuration) and HEAD IS CONTROLLER (by virtue of encasing an engine that generates power) metaphors for cars.

The third group, consisting of items (k) through (u), presents interesting phenomena: triggered by the metaphor HEAD IS BEGINNING, new meanings arose with (k) ‘business timeline’ and (l) ‘river in mountains’; by HEAD IS UNIT, with (m) ‘series of typhoons’ and (n) ‘table’; by HEAD IS TOP, with (o) ‘mountain range’ and (p) ‘tree’; by HEAD IS ROUND, with (q) ‘rose’, and by HEAD IS LUMP, with (r) ‘rice plant’. On the other hand, the head meanings of (s) ‘baseball bat’ and (t) ‘hammer lying’, both originally associated with HEAD IS LUMP, are becoming obsolete. The top radical of a Chinese character in (u) has been called the head, but a substantial number of survey respondents called the low-left corner the head, likely to have been triggered by the HEAD IS BEGINNING metaphor (note that many Thai characters are written from the low-left corner).

B. HEAD in Korean

The survey responses by the Korean participants also showed substantial departure from traditional, established meanings. Notable cases in the survey of Korean HEAD vis-à-vis dictionary designations, listed in Table 2, also consist of three categories. Primacy of traditional dictionary meanings with respect to new meanings as indicated in the survey were, as with the results from the Thai language participants, completely overridden, tied, or challenged.

TABLE 2
INCONSISTENCY IN DICTIONARY-BASED AND SURVEY-BASED MEANINGS OF HEAD IN KOREAN

	Q No.	Target Object	Dictionary Semantics	Survey Response %	Dominant/Emerging Semantics in Survey	Survey Response %	Primacy
a.	#44	tree	④ (no head)	43.3%	③ top	50.0%	overridden
b.	#29	house	④ (no head)	43.3%	③ roof	50.0%	overridden
c.	#10	typhoon series	① one whole typhoon	10.0%	④ (no head) ② biggest typhoon	50.0% 33.3%	overridden
d.	#24	table	① part of a table	0.0%	④ (no head)	76.7%	overridden
e.	#31	pencil	③ eraser tip	20.0%	④ (no head)	53.3%	overridden
f.	#46	turnip	③ leafy bunch	40.0%	④ (no head)	46.7%	overridden
g.	#34	pork rib	② meat lump	13.3%	④ (no head)	83.3%	overridden
h.	#39	trumpet	① bell	36.7%	④ (no head)	53.3%	overridden
i.	#13	river meeting sea	② estuary	6.7%	④ (no head) ① origin	46.7% 43.3%	overridden
j.	#35	roads	③ diverging point	10.0%	④ (no head)	70.0%	overridden
k.	#49	Thai character	③ circle	40.0%	④ (no head)	50.0%	overridden
l.	#8	business timeline	② beginning	13.3%	① preparation ④ (no head)	53.3% 33.3%	overridden
m.	#9	event timeline	② beginning	40.0%	① preparation ④ (no head)	53.3% 33.3%	overridden
n.	#33	pimple/rash	④ (no head)	50.0%	① tip	50.0%	tied
o.	#41	radish	③ leafy bunch	43.3%	④ (no head)	43.3%	tied
p.	#36	skirt	④ (no head)	53.3%	① top (waist)	40.0%	challenged
q.	#19	book	④ (no head)	56.7%	① cover	43.3%	challenged
r.	#20	building	④ (no head)	53.3%	② roof	40.0%	challenged
s.	#12	river in mountain	④ (no head)	46.7%	① origin	43.3%	challenged
t.	#14	mountain	② peak	56.7%	④ (no head)	40.0%	challenged
u.	#11	mountain range	② tallest mountain	60.0%	④ (no head)	36.7%	challenged
v.	#40	cabbage	③ leafy bunch	50.0%	④ (no head)	46.7%	challenged
w.	#42	lily	③ top flower	56.7%	④ (no head)	40.0%	challenged
x.	#45	rose	① top flower	70.0%	④ (no head)	30.0%	challenged
y.	#21	car	③ front end	50.0%	④ (no head)	30.0%	challenged
z.	#18	boat	① front	50.0%	③ top (mast)	30.0%	challenged

In the first group, items (a) tree and (b) house had no head before, but now have the top as their head, an instantiation of the HEAD IS TOP metaphor. The next two items, (c) typhoon and (d) table, which previously had a head in the different senses of ‘one whole typhoon’ and ‘any part of a table’, per the HEAD IS UNIT metaphor, are now considered by more respondents to have no head. Items (e) pencil and (f) turnip, whose top part (i.e., the end with the eraser and the leafy crown, respectively) was their head per the HEAD IS TOP metaphor, are now thought to have no head. The head meanings of (g) pork rib, (h) trumpet, and (i) river meeting sea by the HEAD IS LUMP metaphor (by virtue of the part being noticeably large in size or volume) is not recognized as the head by more respondents. Item (i) river meeting sea has lost its original head meaning of estuary, and been overridden by two new meanings: one seeing no head at all and one seeing the origin of the river as the head, an instance of extension through the HEAD IS BEGINNING metaphor. Item (j) converging roads, originally considered to be the head by virtue of HEAD IS BEGINNING, is now regarded as having no head. Item (k) Thai character, the part of which with a circle is traditionally considered the head, is now considered by more respondents to have no head. Items (l) business timeline and (m) event timeline together constitute an interesting case because both the conventional and innovated meanings are instances of the HEAD IS BEGINNING metaphor, but simply the scopes are different in that the new meanings are based on a broader conceptualization of each event, i.e., including the preparatory stage instead of only the core event per se.

In the second group, (n) pimple/rash, traditionally considered to have no head, is thought by the same number of respondents to have a head in the form of the tip through the HEAD IS TOP metaphor, and, conversely, (o) radish, whose leafy bunch at the top has traditionally been considered the head through the same HEAD IS TOP metaphor, is now thought to have no head by the same number of respondents as those who considered the leafy bunch its head, matching the dictionary designation.

In the last group, items (p) through (z), the first four items are instances of semantic innovation insofar as none of these traditionally had a head but have come to be seen as having a head. Items (p) skirt, (q) book, and (r) building are currently recognized by a significant number of respondents as having a head, motivated by the HEAD IS TOP metaphor, while (s) river in mountain came to have the head meaning by virtue of the HEAD IS BEGINNING metaphor. The next seven items have experienced semantic loss: (t) mountain, (u) mountain range, and (v) cabbage that previously had a head through the HEAD IS TOP metaphor have lost the meaning for many respondents; (w) lily and (x) rose, which had a head through the HEAD IS LUMP metaphor, have lost this meaning; and (y) car, whose front end (containing the engine) has traditionally been called the head, is now thought to have no head. The last item (z) boat has undergone semantic shift: the bow of a

boat being the front end via the HEAD IS FRONT metaphor is currently being challenged by a significant number of respondents who conceptualize the mast, the tallest vertical pole, as its head, by the HEAD IS TOP metaphor.

C. FACE in Thai

As was the case with HEAD, the survey responses by Thai participants for FACE also exhibited substantial departure from the traditional, established meanings. Notable cases in the survey of Thai FACE vis-à-vis dictionary designations are listed in Table 3.

TABLE 3
INCONSISTENCY IN DICTIONARY-BASED AND SURVEY-BASED MEANINGS OF FACE IN THAI

Q No.	Target Object	Dictionary Semantics	Survey Response %	Dominant/Emerging Semantics in Survey	Survey Response %	Primacy
a.	#14 mountain	④ (no face)	33.3%	③ closest side	60.0%	overridden
b.	#18 boat	④ (no face)	20.0%	① front	53.3%	overridden
c.	#32 piano	④ (no face)	33.3%	③ fall board	50.0%	overridden
d.	#25 medicine	④ (no face)	23.3%	③ closest bottle side	70.0%	overridden
e.	#15 nation	④ (no face)	30.0%	① king/president	40.0%	overridden
f.	#16 gang	④ (no face)	13.3%	③ leader	73.3%	overridden
g.	#17 baseball bat	④ (no face)	23.3%	③ barrel	66.7%	overridden
h.	#39 trumpet	④ (no face)	43.3%	① bell	56.7%	overridden
i.	#42 lily	③ flower	43.3%	④ (no face)	50.0%	overridden
j.	#23 coin	④ (no face)	36.7%	③ headed side	36.7%	tied
k.	#28 hammer lying	② face	43.3%	④ (no face)	43.3%	tied
l.	#11 mountain range	④ (no face)	30.0%	① closest side	60.0%	challenged
m.	#37 suspension bridge	④ (no face)	50.0%	① forward end	33.3%	challenged
n.	#44 tree	④ (no face)	50.0%	② closest side	43.3%	challenged
o.	#21 car	③ closest side	50.0%	② front	36.7%	challenged
p.	#22 chair	④ (no face)	50.0%	③ seat	30.0%	challenged
q.	#30 nail	④ (no face)	60.0%	① top flat side	36.7%	challenged
r.	#41 radish	④ (no face)	63.3%	① round thick root	30.0%	challenged
s.	#46 turnip	④ (no face)	63.3%	② round root	30.0%	challenged
t.	#45 rose	④ (no face)	60.0%	① flower	40.0%	challenged
u.	#35 roads	① closest road surface	43.3%	④ (no face)	33.3%	challenged

An intriguing aspect of change in FACE designations is that most instances involve new, emerging meanings. In the first group (a) through (i), (a) mountain, (b) boat, (c) piano, and (d) medicine, previously having no face, now have a face based on the FACE IS FRONT metaphor. It is notable that the ‘front’ here is not ‘inherent’ front (i.e., of the referenced object) but one involving the viewer’s perspective, i.e., the part closest to the viewer (cf. intrinsic vs. deictic; object-centered vs. viewer-centered system; Heine 1997). The next two items, (e) nation and (f) gang, with no face previously, now have a face from the FACE IS REPRESENTATIVE metaphor. The two subsequent items, (g) baseball bat and (h) trumpet, with no face before, now have a face from the FACE IS FLAT SURFACE metaphor. The last item (i) lily traditionally had a face based on FACE IS FLAT SURFACE but has since lost the meaning and is now considered as having no face.

In the second group (j) and (k), (j) coin did not previously have a face, but now the imaged side of a coin is called the face by a number of respondents equal to those who selected the dictionary designation. This is an instance of metonymy whereby ‘the side of a coin with the face image’ is said to be a ‘face’. Item (k) hammer lying previously had a face (i.e., the flat, front-striking surface; note the term ‘face’ for the same part in English), but an equal number of respondents now regard a hammer as not having a face. Interestingly, when a hammer is standing (#27, not shown in Table 3) instead of lying, more people ‘see’ the face than not (63.3% vs. 43.3%) and fewer people ‘do not see’ the face than ‘do see’ (26.7% vs. 43.3%), strongly suggesting that presented configuration affects conceptualization in certain objects.

In the third group (l) through (u), where the traditional meanings are currently being challenged by a substantial number of respondents, the items in the first set, (l) mountain range, (m) suspension bridge, and (n) tree, have traditionally been thought to have no face, but now are thought to have one through the FACE IS FRONT metaphor (see (a) through (d) above as well). Conversely, (o) car, the side of which close to the viewer has traditionally been the face, is undergoing change as a substantial number of respondents chose the front part of a car (that containing the engine and other critical components) as the car’s face (note that nearly half the respondents in the survey from Korean participants viewed this part as a car’s head; see Table 1 above). This change indicates growing intrinsic orientation in the midst of the traditional deictic orientation. The next five items, (p) chair, (q) nail, (r) radish, (s) turnip, and (t) rose, are currently acquiring new ‘head’ meanings through the FACE IS FLAT SURFACE metaphor. The final item, (u) roads, of which the surface closest to the viewer (per the FACE IS FRONT metaphor), is experiencing loss of the ‘face’ meaning in the lexicon of a significant number of respondents.

D. FACE in Korean

Finally, as was the case with FACE in Thai, the survey responses by Korean participants exhibited substantial departure from the traditional, established meanings. Notable cases in the survey of Korean FACE vis-à-vis dictionary designations are listed in Table 4 below.

TABLE 4
INCONSISTENCY IN DICTIONARY-BASED AND SURVEY-BASED MEANINGS OF FACE IN KOREAN

Q No.	Target Object	Dictionary Semantics	Survey Response %	Dominant/Emerging Semantics in Survey	Survey Response %	Primacy
a.	#15	nation	④ (no face)	① king/president	63.3%	overridden
b.	#16	gang	④ (no face)	③ gang leader	56.7%	overridden
c.	#19	book	④ (no face)	① cover	50.0%	overridden
d.	#26	electric fan	④ (no face)	② center knob ③ top round unit	36.7% 33.3%	overridden
e.	#38	train	④ (no face)	① front	50.0%	overridden
f.	#20	building	④ (no face)	③ front side	40.0%	challenged
g.	#29	house	④ (no face)	① front side	43.3%	challenged
h.	#21	car	④ (no face)	② front windshield	40.0%	challenged
i.	#14	mountain	④ (no face)	③ closest side	30.0%	challenged
j.	#44	tree	④ (no face)	② closest side	30.0%	challenged
k.	#46	turnip	④ (no face)	② round root	30.0%	challenged
l.	#17	baseball bat	④ (no face)	③ barrel	33.3%	challenged
m.	#27	hammer standing	④ (no face)	② face (flat side)	36.7%	challenged
n.	#28	hammer lying	④ (no face)	② face (flat side)	30.0%	challenged
o.	#48	musical note	④ (no face)	① note head (circle)	33.3%	challenged
p.	#43	rice plant	④ (no face)	① panicles	40.0%	challenged
q.	#42	lily	③ flower	④ (no face)	43.3%	challenged
r.	#45	rose	① flower	④ (no face)	36.7%	challenged
s.	#23	coin	④ (no face)	③ imaged side	30.0%	challenged
t.	#1	bird	① face	② head	33.3%	challenged

The first group (a) through (e), in which the primacy of the conventional semantic designations has been overturned, consists of five items that traditionally had no face but more lately have acquired a new meaning of ‘face’ for certain of their parts. The first two items, (a) nation and (b) gang, have a face through the FACE IS REPRESENTATIVE metaphor; (c) book has a face via the FACE IS FLAT SURFACE metaphor; and (d) electric fan and (e) train through the FACE IS FRONT metaphor. Incidentally, (d) electric fan has two emerging meanings: ‘the center knob’ of the blades (FACE IS FRONT) and ‘the top round unit’ (FACE IS FLAT SURFACE).

The other group, consisting of 15 cases from (f) through (t), mostly involves emergence of new meanings. The new meanings of the first six items, (f) building, (g) house, (h) car, (i) mountain, (j) tree, and (k) turnip, all involve the FACE IS FRONT metaphor. Here again the distinction is to be made between the ‘intrinsic’ front (for the first three) and the viewer-centered ‘deictic’ front (for the last three). The next three items, (l) baseball bat, (m) hammer standing, and (n) hammer lying, all involve the FACE IS FLAT SURFACE metaphor. Interestingly, the pattern observed in the Thai survey of the differences of presented configurations of a hammer was also observed with the Korean respondents. Item (o) musical note is seen to have a face (note the term ‘head’ for the same part in English) through the FACE IS ROUND metaphor, and item (p) rice plant through the FACE IS TOP metaphor. The next two items, (q) lily and (r) rose, both flowering plants, traditionally had a face in the form of their flower part through the FACE IS FLAT SURFACE, but such meanings are presently being challenged as a substantial number of respondents do not see a face in them. Item (s) coin, which is now acquiring the face meaning, is an instance of metonymy of ‘the side of a coin on which a face is shown’ extending to ‘face’. The last item (t) bird is peculiar in that some Thai respondents designated the ‘head’ part as the face when animal body-parts are generally unambiguous. Upon further consideration, this seems to be due to inaccuracies in the drawing presented in the Thai survey, in which the intended ‘Φ face’ could be interpreted as the beak and the intended ‘② head’ could be interpreted as the face.

V. DISCUSSION

A. Semantic Fluidity

(a). HEAD

Out of 49 survey questions, Thai maintained the traditional HEAD meanings 57.1 percent of the time (28 out of 49), indicating that the traditionally designated ‘head’ meaning in dictionaries and lexica was chosen to be the HEAD of each item by the majority (although not an overwhelming one) of the survey respondents. In 13 cases, 30.0% or more of respondents chose a meaning different from the traditional one, and in 8 cases, a greater number of respondents chose meanings different from the traditional meaning. On the other hand, in the Korean survey, respondents maintained the traditional HEAD meanings in 23 out of 49 instances (46.9%), showing that fewer than half of the survey respondents

chose the traditionally designated ‘head’ meaning in dictionaries and lexica. In 14 cases (28.6%), 30.0 percent or more of respondents chose meanings that are different from the traditional ones, and in 12 cases (24.5%), responses different from the traditional meanings outnumbered the responses for the traditional meanings.

When comparing the traditional meanings of HEAD in Thai and Korean, the researchers found a 57.1 percent agreement, i.e., 28 cases out of 49 revealed identical semantics between the two languages, while 21 cases (42.9%) indicated different meanings. Detailed information is provided in Table 5.

TABLE 5
COMMON AND DIFFERENT TRADITIONAL MEANINGS OF HEAD IN THAI AND KOREAN

Group	Common & Different Meanings in Thai and Korean		
Animals	COMMON: bird, caterpillar, dog, eel, fish, snake, spider (‘upper/front part containing brain’)		
Events	business	T: (no head)	K: beginning of operation
	event	T: preparatory stage	K: beginning of event
	series of typhoons	T: (no head)	K: one whole typhoon
Geological Formations	COMMON: river in mountain (no head)		
	mountain range	T: (no head)	K: tallest mountain
	river meeting sea	T: (no head)	K: estuary
	mountain	T: (no head)	K: peak
Institutions/Groups	COMMON: nation (head of state); gang (gang leader)		
Objects	COMMON: train (locomotive); baseball bat (barrel); boat (bow); hammer standing & hammer lying (face); nail (head); connected roads (converging/diverging point); trumpet (bell); chair, piano, book, building, house (no head)		
	car	T: (no head)	K: front
	coin	T: imaged-side	K: (no head)
	table	T: (no head)	K: any part of table
	medicine	T: main ingredient	K: (no head)
	electric fan	T: (no head)	K: round top unit
	pencil	T: sharpened tip	K: eraser tip
	pimple/rash	T: tip	K: (no head)
	pork rib	T: (no head)	K: meat lump
	skirt	T: uppermost part (waist)	K: (no head)
	suspension bridge	T: end-part	K: (no head)
	COMMON: cabbage (leafy bunch); tree (no head)		
Plants	radish	T: round thick root	K: leafy bunch
	lily	T: (no head)	K: flower
	rice plant	T: (no head)	K: panicles
	rose	T: (no head)	K: flower
	turnip	T: round root	K: leafy bunch
Notations	COMMON: musical note (notehead), Thai character (circle); Chinese character (top radical)		

Notably, the meanings of ontological categories such as Animals, Institutions/Groups, and Notations are unanimously identical. The HEAD of animals is intuitive because a head is anatomically defined and is easily perceivable. The motivation for designating a head for Institutions/Groups can be easily deduced from the ‘representability’ of a head (as exemplified by the English expression ‘head of the state’). In notating characters of an alphabet, calling the circular part or the top element the head seems to be a matter of convention that emerged from metaphors based on the circular shape or relative top location of a human head.

More importantly for our purposes, a number of cases have undergone substantial change, as manifested by the responses of the survey participants. Cases where traditional meanings (as shown in Table 5) have lost their primacy or been challenged by new meanings (i.e., new meanings were selected by 30.0 percent or more of the participants) (as shown in Tables 1 and 2) are listed in (6), which shows that 44.9 percent and 51.0 percent of the surveyed cases in Thai and Korean, respectively, have undergone change at a non-trivial level.

(6) a. Substantial change in both Thai and Korean (n=15): business, event, typhoon, river in mountain, mountain range, river meeting sea, mountain, connected roads, trumpet, car, table, skirt, cabbage, tree, rose

b. Substantial change in Thai only (n=7): baseball bat, hammer lying, medicine, electric fan, suspension bridge, rice plant, Chinese character

c. Substantial change in Korean only (n=10): boat, book, building, house, pencil, pimple/rash, pork rib, radish, lily, Thai character

(b). *FACE*

As for FACE, the traditional ‘face’ meanings were maintained in 55.1 percent of the surveyed questions in Thai (27 out of 49), and in 59.2 percent of those in Korean (29 out of 49) (N.B. this means that the traditionally designated ‘face’ meaning in dictionaries and lexica is chosen to be the FACE by the majority of the survey respondents). When comparing Thai and Korean, the FACE meanings in the two languages occurred in 75.5 percent of instances of identical semantics (37 out of 49) and in 24.5 percent of different semantics (12 out of 49). The details are shown in Table 6 below.

TABLE 6
COMMON AND DIFFERENT TRADITIONAL MEANINGS OF FACE IN THAI AND KOREAN

Group	Common & Different Meanings in Thai & Korean		
Animals	COMMON: bird, caterpillar, dog, eel, fish, snake, spider ('face; location of eyes, etc.')		
Events	COMMON: business, event, typhoon (no face)		
Geological Formations	COMMON: mountain range, river in mountain, river meeting sea, mountain (no face)		
Institutions/Groups	COMMON: nation, gang (no face)		
Objects	COMMON: baseball bat, boat, chair, coin, medicine, nail; pencil; piano; pimple/rash, pork rib, suspension bridge, trumpet (no face)		
	book	T: cover	K: (no face)
	building	T: front façade	K: (no face)
	car	T: closest side	K: (no face)
	table	T: top surface	K: (no face)
	electric fan	T: center knob	K: (no face)
	hammer standing	T: face (flat surface)	K: (no face)
	hammer lying	T: face (flat surface)	K: (no face)
	house	T: front façade	K: (no face)
	roads	T: closest road surface	K: (no face)
	skirt	T: patterned side	K: (no face)
	train	T: front	K: (no face)
Plants	COMMON: lily (flower); cabbage, radish, rice plant, tree, turnip (no face)		
	rose	T: (no face)	K: flower
Notations	COMMON: musical note, Thai character, Chinese character (no face)		

From Table 6, it is notable that in such ontological categories as Animals, Events, Geological Formations, Institutions/Groups, and Notations, the meanings are unanimously identical. The FACE of animals is intuitive because their face is anatomically defined and easily perceivable, i.e., it is the area with eyes and other perceptual organs. The conceptualization of Events, Geological Formations, Institutions/Groups, and Notations, as well as many other surveyed non-human and non-animal items, as having no face strongly suggests that a face is perceived more clearly on the basis of human anatomy than on a purely configurational basis.

However, more importantly for our purposes, a number of cases have undergone substantial change, as indicated by the survey participants' responses. The cases whose traditional meanings (as shown in Table 6 above) have lost their primacy or been challenged by new meanings (i.e., new meanings were selected by 30.0 percent or more of the participants) (as shown in Tables 3 and 4) are listed in (7), which shows that 40.8 percent of the surveyed cases in Thai and 38.8 percent of those in Korean have undergone a non-trivial degree of change.

(7) a. Substantial change in both Thai and Korean (n=10): mountain, nation, gang, baseball bat, coin, car, hammer lying, lily, tree, turnip

b. Substantial change in Thai only (n=10): mountain range, boat, chair, medicine, nail, piano, suspension bridge, trumpet, roads, radish

c. Substantial change in Korean only (n=9): bird, book, building, electric fan, hammer standing, house, train, rice plant, musical note

As shown above, lexical meanings are fluid, not fixed. In the case of HEAD and FACE, such fluidity can be attributed to the variable application of corporeal metaphors. Therefore, an investigation of metaphors, which either trigger the emergence of new meanings or the loss of the existing meanings through the loss of the metaphors themselves, is in order. Table 7 summarizes such metaphors for HEAD.

TABLE 7
METAPHORS INVOLVED IN SEMANTIC EXTENSION OR LOSS IN HEAD IN THAI AND KOREAN

Metaphor	THAI		KOREAN	
	Extension	Loss/Weakening	Extension	Loss/Weakening
(A) HEAD IS TOP	rose*, mountain, mountain range, electric fan*, skirt, tree, rice plant* (n=7)	cabbage*, Chinese character* (n=2)	tree, house, pimple/rash*, skirt, book, building, boat* (n=7)	rose*, mountain, mountain range, turnip, radish, cabbage*, lily* (=7)
(B) HEAD IS LUMP	electric fan*, rose*, rice plant* (n=3)	trumpet, baseball bat, hammer lying (n=3)		rose*, pork rib, trumpet, river meeting sea*, lily* (n=5)
(C) HEAD IS ROUND	rose*, electric fan* (n=2)	cabbage* (n=1)		rose*, cabbage*, Thai character (n=3)
(D) HEAD IS BEGINNING	event timeline, business timeline, river in mountain, Chinese character* (n=4)	roads (n=1)	river meeting sea*, river in mountain (n=2)	event timeline, business timeline, roads (n=3)
(E) HEAD IS END		suspension bridge (n=1)	pimple/rash* (n=1)	pencil (n=1)
(F) HEAD IS FRONT	car (n=1)			car, boat* (n=2)
(G) HEAD IS SOLID	cabbage* (n=1)			
(H) HEAD IS DOMINANCE		medicine (n=1)	typhoon* (n=1)	
(I) HEAD IS UNIT OF EVENT	typhoon (n=1)			typhoon* (n=1)
(J) HEAD IS UNIT OF SPACE	table (n=1)			table (n=1)

Table 7 lists ten metaphors that previously operated or have ceased to operate in the lexical semantic change of HEAD. Some instances (marked with an asterisk) involve multiple metaphors, e.g., the emergence of the ‘head’ meaning with a rose in Thai is likely motivated by the (A) HEAD IS TOP, (B) HEAD IS LUMP, and (C) HEAD IS ROUND metaphors, and conversely, the same metaphors are involved in the weakening of semantic representation of a rose in Korean. Table 7 presents a few notable aspects. In the domain of HEAD, the HEAD IS TOP metaphor seems to be the most dynamically involved metaphor for semantic extension in both Thai and Korean, as well as for semantic loss in Korean. This metaphor influences language users of Thai and Korean to see more heads in objects, including such common items as trees and skirts, thereby presenting a strong contrast with the earlier lexicon-based study by Rhee et al. (2025, p. 4042) that claimed that Thai favors conceptualization along the horizontal axis instead of the vertical axis in the semantic extension of HEAD. A river in a mountain is thought to have a head (its origin upstream) via HEAD IS BEGINNING in both languages. Interestingly, a typhoon gained new meaning in both languages but via different metaphors, i.e., HEAD IS UNIT OF EVENT (thus, the whole typhoon) in Thai, versus HEAD IS DOMINANCE (thus, the most powerful typhoon in series) in Korean. A cabbage is losing the ‘head’ meaning for its top part by virtue of (A) being at the top and (C) being round in both languages, but unlike Korean in which only semantic weakening/loss is occurring, Thai is innovating a new meaning by referring to the hard knot near the root as the head, via the HEAD IS SOLID metaphor, in a case of semantic shift. Changes are apparent in opposite directions as well. For instance, in Thai, a mountain or a mountain range is gaining the ‘head’ meaning in referring to the top part of a mountain or the highest peak of a mountain range via the (A) HEAD IS TOP metaphor, while in Korean the same meanings of the same items based on the same metaphor are declining. Curiously, in Thai, event timelines and business timelines are acquiring a new ‘head’ meaning (referring to the preparatory stages) via (D) the HEAD IS BEGINNING metaphor, but in Korean the same metaphor for the same items is waning. Similarly, a few more items currently gaining the ‘head’ meaning in Thai, e.g., a car (HEAD IS FRONT), a typhoon (HEAD IS UNIT OF EVENT), and a table (HEAD IS UNIT OF SPACE), are losing the ‘head’ meaning in Korean.

Similar observations can be made with FACE. Table 8 is a summary of the metaphors that have operated or ceased to operate in the lexical semantic change of FACE.

TABLE 8
METAPHORS INVOLVED IN SEMANTIC EXTENSION OR LOSS IN FACE IN THAI AND KOREAN

Metaphor	THAI		KOREAN	
	Extension	Loss/Weakening	Extension	Loss/Weakening
(A) FACE IS FRONT (D: deictic; I: intrinsic)	mountain (D), tree (D), medicine (D), mountain range (D), suspension bridge (D), car (I), boat (I), piano (I) (n=8)	car (D), roads (D) (n=2)	mountain (D), tree (D), car (I), train (I), building (I), house (I) (n=6)	
(B) FACE IS FLAT	baseball bat, turnip, trumpet, chair, nail*, radish (n=6)	hammer lying* (n=1)	baseball bat, turnip, hammer lying*, hammer standing* (n=4)	
(C) FACE IS TOP	rose*, nail* (n=2)	lily* (n=1)	book, electric fan*, rice plant (n=3)	rose*, lily* (n=2)
(D) FACE IS ROUND	rose* (n=1)	lily*, hammer lying* (n=2)	electric fan*, hammer lying*, hammer standing*, musical note (n=4)	rose*, lily* (n=2)
(E) FACE IS DOMINANCE	nation, gang (n=2)		nation, gang (n=2)	

Table 8 shows five metaphors for the domain of FACE that are involved in semantic extension or loss. Among these, the (A) FACE IS FRONT metaphor is the most dynamically involved metaphor in semantic extension of FACE in Thai and Korean (note further the ‘deictic’ (D) and ‘intrinsic’ (I) distinctions). This is likely the metaphor that enabled the semantic extension of FACE in Thai and Korean for a number of items, including mountains, trees, and cars. The (B) FACE IS FLAT metaphor is seen to be resilient in both languages, triggering emergence of new ‘face’ meanings with a baseball bat (the barrel) and turnip (the widest part of the root). Finally, the (E) FACE IS DOMINANCE metaphor is responsible for the semantic innovation of referring to a nation (ruler) and a gang (leader) in both languages. By contrast, a lily, whose flower was traditionally conceptualized as a face in Thai and Korean, is losing the ‘face’ meaning in both languages.

Some changes in opposite directions in both languages are also observable. In Thai, a hammer lying is losing the ‘face’ meaning (the ‘face’ by virtue of being flat and round), but in Korean the same metaphors trigger the acquisition of the ‘face’ meaning for both a hammer lying and hammer standing. Incidentally, a hammer standing (i.e., with the grip at the bottom) and a hammer lying have slightly different conceptualizations. For the Thai respondents, a hammer lying (i.e., in horizontal orientation) is divided equally into those who perceive a face and do not perceive one (43.3% each), while a hammer standing (i.e., in vertical orientation) is predominantly seen as having a face (63.3%). This differs from Korean respondents, for whom the majority consider a hammer to have no face, whether lying (66.7%) or standing (53.3%). This difference of perspective suggests that Thai and Korean language users have slightly different sensitivity to verticality and horizontality, a point briefly made in IV above. Another example of opposite change is a rose, which is currently gaining a new ‘face’ meaning (by being round and having a prominent top) in Thai while losing the ‘face’ meaning in Korean. As alluded to briefly before, the notion of ‘front’ in the (A) FACE IS FRONT metaphor can be either intrinsic (e.g., the front end of a car that includes the hood and windshield) or deictic (e.g., the part or side of a car closest to the viewer). Traditionally, Thai seems to favor the deictic conceptualization pattern for certain items. Although some deixis-based ‘face’ meanings have weakened over time (e.g., cars, roads), the deictic ‘face’ remains among the strongest drivers of innovation. This preference, however, is not prominent in Korean, despite the pattern existing with mountains and trees. Also notable is the increase of the conceptualization of intrinsic face in Thai, as seen in cars, boats, and pianos, and in cars, trains, buildings, and houses in Korean.

In sum, the foregoing exposition on the meanings of HEAD and FACE based on the survey results clearly suggests that meaning is continually in flux and that semantic extension is at least partly enabled by the application of new metaphors and by the weakened influence of existing metaphors that were once instrumental in the creation of the meanings.

B. Convergence and Divergence

Since HEAD and FACE share some conceptual properties (e.g., top, round, front, importance, etc.), it is expected that there may be overlap between the two as a result of change. Indeed, a national ruler, gang leader, baseball bat barrel, hammer face, train front, and trumpet bell were called either HEAD or FACE by a significant number of the Thai respondents, and, similarly, a national ruler, gang leader, book cover, electric fan’s upper unit, train front, lily’s flower, rose’s flower, and rice plant’s panicles were called either HEAD or FACE by a significant number of the Korean respondents.

The semantic convergence is also observed between Thai and Korean. A list of the primary and secondary meanings of the items (chosen by 30.0% or more of the subjects) is shown in Table 9. These items have different dictionary meanings, but in the current mental lexicon of modern-day speakers of Thai and Korean, the differences are either neutralized or significantly decreasing.

TABLE 9
INCREASED SIMILARITY AFTER SEMANTIC CHANGE OF HEAD AND FACE IN THAI AND KOREAN

Survey item	THAI primary and secondary meanings (+30%) after change		KOREAN primary and secondary meanings (+30%) after change	
HEAD (n=18)	#8 business timeline	no head (43.3%)	prep stage (40.0%)	prep stage (53.3%)
	#9 event timeline	no head (53.3%)	prep stage (40.0%)	beginning (40.0%)
	#12 river in mountain	no head (53.3%)	origin (33.3%)	origin (43.3%)
	#13 river meeting sea	no head (56.7%)		origin (43.3%)
	#14 mountain	no head (50.0%)	peak (50.0%)	peak (56.7%)
	#21 car	no head (43.3%)	front (43.3%)	no head (40.0%)
	#24 table	no head (56.7%)	corner (33.3%)	no head (30.0%)
	#25 medicine	no head (90.0%)		no head (76.7%)
	#26 electric fan	top unit (43.3%)	no head (36.7%)	no head (83.3%)
	#33 pimple/rash	tip (86.7%)		top unit (63.3%)
	#34 pork rib	no head (90.0%)		no head (50.0%)
	#35 roads	no head (56.7%)		no head (83.3%)
	#36 skirt	no head (56.7%)	waist (43.3%)	no head (70.0%)
	#37 suspension bridge	no head (43.3%)	end-part (33.3%)	no head (53.3%)
	#39 trumpet	no head (50.0%)	bell (40.0%)	no head (66.7%)
	#42 lily	no head (60.0%)		bell (36.7%)
	#43 rice plant	no head (60.0%)	panicles (40.0%)	flower (56.7%)
	#45 rose	no head (56.7%)	flower (40.0%)	panicles (80.0%)
FACE (n=17)	#14 mountain	closest side (60.0%)	no face (33.3%)	flower (70.0%)
	#15 nation	ruler (40.0%)	no face (30.0%)	no head (30.0%)
	#16 gang	leader (73.3%)		no face (56.7%)
	#17 baseball bat	barrel (66.7%)		no face (30.0%)
	#19 book	cover (76.7%)		no face (60.0%)
	#20 building	front façade (90.0%)		barrel (33.3%)
	#21 car	closest side (50.0%)	front (36.7%)	cover (50.0%)
	#26 electric fan	center knob (70.0%)		no face (43.3%)
	#27 hammer standing	face (63.3%)		no face (53.3%)
	#28 hammer lying	face (43.3%)	no face (43.3%)	front façade (40.0%)
	#29 house	front façade (90.0%)		front (40.0%)
	#35 roads	closest surface (43.3%)	no face (33.3%)	center knob (36.7%)
	#38 train	front (70.0%)		no face (53.3%)
	#42 lily	no face (50.0%)	flower (43.3%)	face (36.7%)
	#44 tree	no face (50.0%)	closest side (43.3%)	face (30.0%)
	#45 rose	no face (60.0%)	flower (40.0%)	front façade (43.3%)
	#46 turnip	no face (63.3%)	round root (30.0%)	no face (50.0%)

As Table 9 shows, an absolute majority of instances of gaining similarity in HEAD involves the loss of the ‘head’ meanings (15 out of 18 cases; 83.3%; light-shaded cells), while there is a lower proportion of instances of gaining a meaning in one language that already exists in the other language (11 out of 18 cases; 61.1%; dark-shaded cells) (note that nine instances involve both). On the other hand, the convergence pattern in FACE shows a significant difference: while convergence due to loss of the ‘face’ meanings is observed in 7 out of 17 cases (41.2%), it is observed due to gaining new ‘face’ meanings in 15 out of 17 cases (88.2%) (note that six cases involve both). Thus, at a macro-level, it can be said that Korean and Thai HEAD lexemes are becoming similar due to loss of ‘head’ meanings in many inanimate objects that previously had them, and that Korean and Thai FACE lexemes are becoming similar due to gaining new ‘face’ meanings in inanimate objects through adopting the same metaphors.

In addition to convergences, there are instances of divergences as well. Table 10 provides a list of the items with the same meanings in Thai and Korean dictionaries but significant differences from the survey results (Note: the semantic differences are indicated as ‘meanings after change’).

TABLE 10
INCREASED DIVERGENCE AFTER SEMANTIC CHANGE OF HEAD AND FACE IN THAI AND KOREAN

Survey item		THAI primary and secondary meanings (+30%) after change		KOREAN primary and secondary meanings (+30%) after change	
HEAD (n=6)	#17 baseball bat	barrel (43.3%)	no head (40.0%)	barrel (70.0%)	
	#18 boat	bow (76.7%)		bow (50.0%)	mast (30.0%)
	#19 book	no head (70.0%)		no head (56.7%)	cover (43.3%)
	#20 building	no head (63.3%)		no head (53.3%)	roof (40.0%)
	#28 hammer lying	face (50.0%)	no head (43.3%)	face (76.3%)	
	#40 cabbage	near-root bottom (40.0%)	leafy bunch (33.3%)	leafy bunch (50.0%)	no head (46.7%)
FACE (n=6)	#22 chair	no face (50.0%)	seat (30.0%)	no face (83.3%)	
	#30 nail	no face (60.0%)	flat top (36.7%)	no face (66.7%)	
	#32 piano	fall board (50.0%)	no face (33.3%)	no face (73.3%)	
	#39 trumpet	bell (56.7%)	no face (43.3%)	no face (80.0%)	
	#43 rice plant	no face (66.7%)		no face (53.3%)	panicles (40.0%)
	#48 musical note	no face (70.0%)		no face (60.0%)	notehead (33.3%)

A clear pattern of semantic divergence emerges in Table 10 in comparison with Table 9 above. First of all, convergence is much more common than divergence, as can be easily deduced from the number of applicable cases (a total of 35 cases of convergence and 12 cases of divergence). Furthermore, divergence due to loss of ‘head’ or ‘face’ meanings is much rarer (3 out of 12 cases; light-shaded cells) than divergence due to gaining new meaning by the HEAD or FACE lexeme in only one language (10 out of 12 cases; dark-shaded cells) (note that one instance, #40-HEAD, involves both). Overall, it can be said that HEAD and FACE lexemes in Thai and Korean become more similar than different, and cases of difference are largely due to one lexeme gaining a new meaning while its counterpart in the other language does not.

VI. SUMMARY AND CONCLUSION

This paper has addressed lexicalization and semantic extension patterns of HEAD and FACE in Thai and Korean, focusing on the motivating metaphors. The study presents a number of theoretically important observations. First, the study clearly shows that semantic structure is fluid. Changes are conducive to either convergence or divergence of meanings in the two languages, but a quantitative analysis clearly shows that instances of convergence far outnumber those of divergence, i.e., the meanings of HEAD and FACE in Thai and Korean are becoming similar. Regarding the metaphors that operate in the observable instances of semantic change in both languages, the two metaphors HEAD IS TOP and FACE IS FRONT are the most dynamically involved in the semantic changes of HEAD and FACE, respectively. Also notable is that the deictic model of FACE has been more popularly adopted in Thai, although adoption of the intrinsic model is increasing. It is suggested that more comprehensive studies in the future be performed with subjects with more diversified demographic profiles. Results of such explorations are expected to facilitate fuller understanding of the semantic structures of the HEAD and FACE lexemes in Thai and Korean, as well as the extent of lexical fluidity they exhibit.

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