

### Week 3: Towards an evolutionary approach: Keller's invisible-hand theory

#### 1. Keller's dissatisfaction with (one kind of) traditional explanation

(i) Sie ist von englischer Gestalt

→ up until c.1850 there was ambiguity: angelic / English; present-day German: English, *engelhaft* now being used for 'angelic'

- traditional "explanation": "*The reason why 'englisch' was replaced by 'engelhaft' was its homonymy with 'englisch' in the sense of 'British'.*" (Keller 1989:113)
- Keller: that's not an explanation, homonymy being neither a necessary nor sufficient condition for the loss of a word
- the reason why some linguists would nonetheless accept it as an explanation is that homonymy *is* part of the story; still it cannot be the whole story, as it leaves unanswered the following questions:
  - Why doesn't a substitution take place in other pairs of homonyms as well?
  - Why isn't the other word of the pair (i.e. *english* 'British') replaced?
  - Why did the substitution take place in the middle of the 19th century, while Goethe for example had used the word *englisch* almost exclusively in the sense of *angelic*?
- true explanation shows why something happened *necessarily* as the outcome of something else

#### 2. Invisible-hand explanations of phenomena of the third kind

- recognising that speakers do not ordinarily *plan* language change, Keller suggests that explanation must be of the INVISIBLE-HAND type, an idea borrowed from economics (Adam Smith), where it is used to refer to a situation where individuals are "led by an invisible hand to promote an end which was no part of his intention." (Smith 1776:354, cited in Keller 1989:115; fn.1)
- in line with the invisible-hand character of language change Keller sees language as an example of so-called PHENOMENA OF THE THIRD KIND:

"phenomena which are the unplanned causal consequence of intentional actions" (1989:115; cf. also 1985), see also traffic jams or inflation

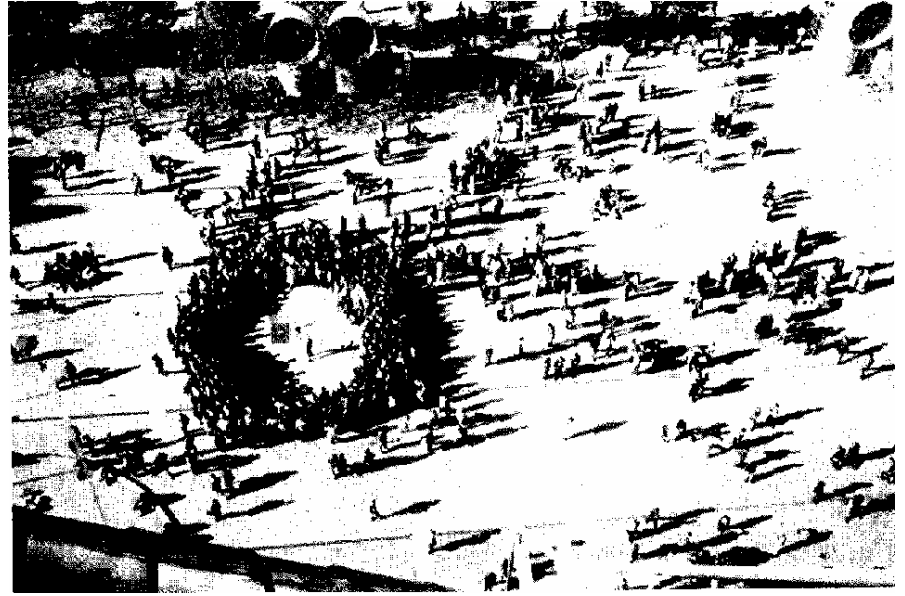
- phenomena of the first kind: natural phenomena; of the second kind: artifactual phenomena
- phenomena of the third kind imply a distinction between a MICRO and a MACRO level (Keller 1989:118): speakers perform linguistic actions with local goals in mind (at some level of consciousness) — the micro level —but without any no specific intentions regarding what may/will eventually happen to the language as a whole — the macro level
- *10 Minutes in front of the Centre Pompidou* → a visual example of a phenomenon of the third kind
- "The structure to be explained is the unintended consequence of individual actions which are not directed towards the generation of this structure" (Keller 1989:118)
- if we hadn't known these circles were formed by people watching two street performers we might have thought the structure was the result of soldiers carrying out specific orders to form two rings of a specific diameter
- if that were so, this would be a phenomenon of the second kind (with each soldier intending to bring something about on the macro level)
- thus, in order to properly understand this social structure one must know the function of the actions of the individuals participating in the generation of this structure → why do these people behave in the way they do?
- invisible-hand explanations depend on the correct formulation of the motivation behind individuals' actions on the micro level, so-called behavioural MAXIMS
- maxims in these spectators:
  - position yourself such that you have a good view
  - position yourself such that you don't obtrude others
  - position yourself such that a reasonable number of other people also have a good view

#### 3. Competing motivations

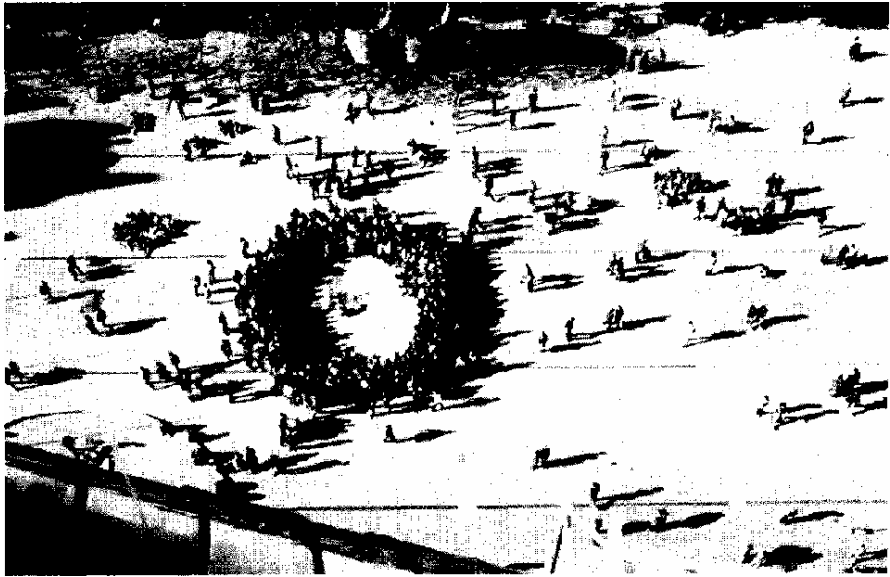
- on the most abstract level, Keller calls the competing maxims STABLE (HOMOGENIZING, conform to convention) v. DYNAMIC (challenge convention)
- one of the principal stable maxims: 'Do not speak to the other in a different way from that in which the other would have spoken to you under the same circumstances' (Humboldt 1836/1907, discussed in Keller 1989:121) → leads to a considerable degree of stability in the language



I



III



II

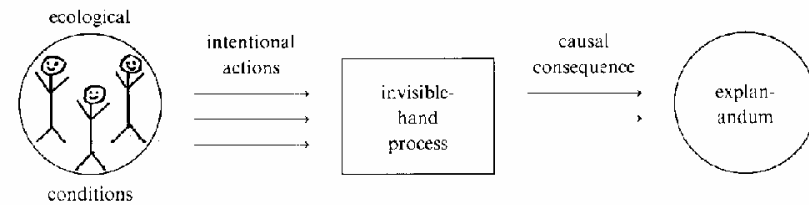


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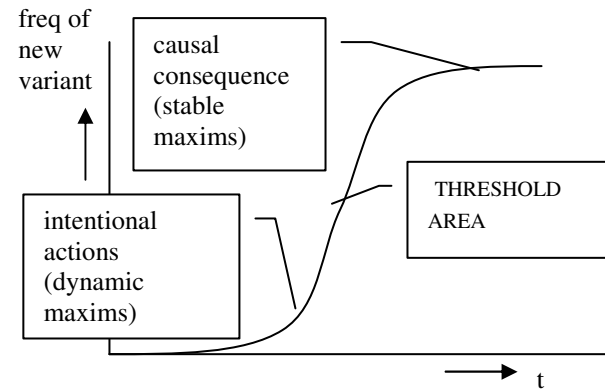
- another important stable maxim: ‘Be understood’ (also leads to maintaining the linguistic status quo)
- important dynamic maxim: ‘Be noticed’ (Keller 1989:122); cf. e.g. the rapid pejoration and resulting replacement in German words for ‘woman’: *Weib*, *Frauenzimmer*, *Frau*, *Dame* (Keller 1989:119) — being ‘gallant’ requires doing something exceptional (EXTRAVAGANT) but once many speakers have come to behave exceptionally in the same way, it is in fact no longer exceptional but simply the norm → speakers have to find a novel way to express their gallantry
- implicit hypothesis: speakers, as social beings, simultaneously want (a) to belong to some speech community (reinforcing linguistic conventions) and (b) to stand out from the crowd (being linguistically “extravagant”)
- the maxims operating at any given point in time are often in conflict: “Often we try to be understood, to get attention, to distance ourselves, all at the same time and with minimal effort” (Keller 1989:121)
- as a result, invisible-hand explanations can be rather complicated

#### 4. So what does an invisible-hand account look like?

- proper formulation of the maxims at work in a particular change, important though it is, is only part of the explanation: they underlie speakers’ INTENTIONAL ACTIONS
- the circumstances under which a linguistic change takes place (ECOLOGICAL CONDITIONS) furthermore include the nature of the speaker’s language [e.g. homonymy] and the world he lives in [e.g. sociocultural constraints, or the Normal conquest], as far as they are relevant for the speaker’s choice of action and his choice of linguistic means” (Keller 1989:120); he also mentions that possible mechanisms speakers may use to come up with new variants (e.g. metaphor) are included in the ecological conditions → in short: “[a]ll the intra- or extralinguistic conditions, which influence communicative actions” (Keller 1989:123)
- the invisible-hand process itself is compared to a black box (Keller 1989:121); its “output” is a causal consequence in the sense of some structure being brought about without individuals having intended it
- schematic representation (Keller 1989:123; Fig. 1):



- could be mapped onto the S-curve model of language change (for which see e.g. Aitchison 1991::85-7)



#### 5. Invisible-hand accounts as scientific explanations

- Keller claims that his theory is proper science in the sense of allowing one to show how a particular linguistic change followed *necessarily* from the premises
- e.g. in German the older words for ‘woman’ died out (at least in the semantic-pragmatic function in which they were once the norm) because they were no longer ‘gallant’ enough, and therefore one generation of speakers started forgetting and at some point stopped using them, making them unavailable to the next in the process of acquisition → it is a logical impossibility to acquire a word (or a word meaning) to which you have not been exposed
- however, Keller emphasises that the theory cannot predict beforehand every linguistic change that is going to occur, as the invisible-hand process takes as its input actions of people and ecological conditions → people’s intentions are never absolutely predictable, and neither are e.g. social/political circumstances

## 6. The disappearance in German of *englisch* ‘angelic’

ecological conditions (Keller 1989:125):

- (a) *englisch*<sub>1</sub> ‘angelic’ can only apply to a (small) subset of the ‘things’ to which *englisch*<sub>2</sub> (British) is sensibly applicable
- (b) *englisch*<sub>1</sub> and *englisch*<sub>2</sub> were homonymous
- (c) mid 19th century: ‘angelicality’ personified a kind of ideal picture of women; this increased the occasions when *englisch*<sub>1</sub> was used
- (d) at the same time England / English products due to industrialisation became more important to the Germans; this increased the frequency of *englisch*<sub>2</sub>
- (e), (c), (d) together caused a hitherto irrelevant homonymy conflict potential to become active [if ambiguity only arises occasionally, speakers aren’t very concerned about it]
- (f) *englisch*<sub>1</sub> is considered to be a derivation of the noun *Engel* which, thanks to the word formation rules of German, allows almost synonymous non-homonymous alternative derivation: *engelhaft*
- (g) (f) is not valid *mutatis mutandis* for *englisch*<sub>2</sub>
- (h) speakers trying to avoid being misunderstood (due to (b)-(e)) could (due to (f) and (g)) avoid *englisch*<sub>1</sub> (but not *englisch*<sub>2</sub>) in favour of alternative expressions
- (i) due to (a) the chances of being misunderstood were greater for *englisch*<sub>1</sub> than for *englisch*<sub>2</sub> [cf. e.g. *Sprechen Sie englisch?* ‘Do you speak English?’ → no potential for misunderstanding]

maxims leading (under conditions a-i) to the disappearance of *englisch*<sub>1</sub>:

M<sub>1</sub>: Be understood

M<sub>2</sub>: Avoid being misunderstood

speakers actively started to avoid using *englisch*<sub>1</sub> (choosing *engelhaft* instead) → the change gains more and more momentum → at some point (after the threshold area) *englisch*<sub>1</sub> is only part of the vocabulary of a minority → speakers acquiring the language hear it only rarely and don’t acquire it as part of their active and at some point even passive vocabulary (that’s a ‘law’) → *englisch*<sub>1</sub> becomes completely obsolescent

## 7. Some shortcomings of Keller’s model

- how to prove that the maxims invoked actually exist? (in order to prove that men set out to be gallant one would ideally look directly into their minds) → risk of post hoc-ness in proposing maxims; Keller acknowledges that this is a weak point in his theory

- the range of Keller’s examples is very restricted; how does his model fare with other types of change (e.g. chain shifts (week 4), analogical levelling of morphological paradigms (week 7))?
- while the account of the disappearance of *englisch*<sub>1</sub> might seem to work quite nicely, it fails to explain why speakers settled on *engelhaft* as opposed to some other possible variants (in addition to suffixing *-haft* there are other ways in German to derive an adjective from a noun, cf. e.g. *engelgleich*, lit. ‘angel-like’); Keller’s account of pejoration and replacement in the ‘woman’ words is problematic in the same way: there were always several variants around for speakers to choose from → it’s not clear why at some point they all opted for e.g. *Frau* or, more recently, for *Dame* (the notion of prestige from sociohistorical linguistics is presumably relevant here, cf. Croft 2000:62)
- even for the possibly small class of changes that Keller’s model can be applied to one may wonder to what extent it constitutes anything new, by way of an “explanation”, over an account based on e.g. Gricean maxims, our knowledge of frequency and S-curves and the reasonably well-established idea that speakers may display goal-directed behaviour locally if not on the level of the language as a whole (e.g. Vincent 1978, Lass 1980)

## References

- Aitchison, Jean. 1991. *Language change: progress or decay*. Cambridge: CUP.
- Croft, William. 2000. *Explaining language change*. Harlow: Longman, pp.59-62. [a brief summary, framed in Croft’s own evolutionary terms and therefore not easy to follow without reading the rest of his book as well — which is excellent by the way]
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