The Pigeon-Post

Introduction

This essay analyses the medium of pigeon-post for communication. After a presentation of history and modus operandi, comparisons will be made against Crystal's seven features of speech and text (2006) following which it will be explicated how pigeon-post has affected language, concluding with its effects on communication, language, and society in contemporary times.

Modus Operandi

Through selective breeding, domesticated pigeons were cultivated into specialised homing pigeons with strong navigational instincts. These birds would eventually become the most commonly used medium of long-distance postage and communication in human civilisation (before the electric telegraph and radio) by delivering messages, written on small sheets of parchment and secured in a metal or glass tube no more than 6g, which were commonly clipped to their legs and delivered by flight. If circumstances necessitated more information be communicated, pigeons could also transport a payload of up to 40g on their chests or 75g on their backs (Sandell 2014); however, this would usually impede the efficiency of delivery. Before these pigeons could navigate between 2 locations, they would first need to be transported manually, over land, from its owners' residence to that of any potential communicatee. Once this journey had been completed and the pigeons' respective lofts had been established, messages could be exchanged, sometimes multiple times per day; both commercial and private operators of pigeon-post learnt to train them to recognize one loft specifically for food and another for shelter or rest, hence pigeons would continually travel between the 2 all along while delivering messages. Conventionally, around each bird's leg was also clipped an identification tag registered to its owner while around the other leg was secured the message - anyone who wished to use pigeon-post to send air mail needed to have a few registered pigeons of their own.

History

The oldest attested records indicate the employment of pigeon-post even during ancient Egyptian civilisation, 2900BC (James and Thorpe 1994). Other historical references have been made to Ancient Rome and the use of pigeons to communicate the outcome of Olympic Games, 776BC (Holzmann and Pehrson 1995). Accounts throughout history have demonstrated that pigeon-post was most ubiquitous and essential for communication in the realms of political affairs and governance - between state officials in the Moslem Empire, 632 A.D.; trade, stockbroking, and finance - between

merchants in the Levant, 1620-1690, and between London and Paris in the 1850s ("Carrier Pigeons 2016); and war - during the 1870 Franco-Prussian War, World War I, and World War II (WW2), where the UK deployed approximately 250 000 war carrier pigeons to communicate intel between battleground frontlines and home bases (Maksel 2012). In less official contexts, pigeon-post was also an effective means of communication in the 1940s and 1950s between stage actors, agents, and theatre producers in England, as well as between isolated communities and mainland authorities - for example, pigeon-post facilitated administrative communication between Catalina Island's Avalon and Los Angeles from 1894 – 1998 (Zahn 1958).

Comparisons with Speech and Text

Speech		<u>Text</u>	
Time-bound	No	Space-bound	Yes
Spontaneous	No	Contrived	Yes
Face-to-face	No	Visually decontextualized	Yes
Loosely structured	Varying degree	Elaborately structured	Varying degree
Socially interactive	Varying degree	Factually communicative	Yes
Immediately revisable	No	Repeatedly revisable	Varying degree
Prosodically rich	No	Graphically rich	Yes

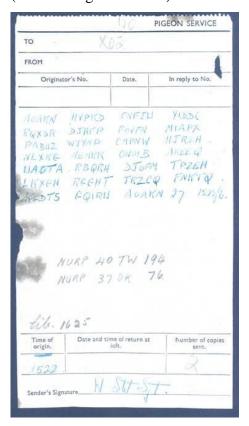
Using Crystal's comparative chart between features of speech and text (2006), we might analyse how these various facets measure against the characteristics of pigeon-post communication through convergence or divergence; since this medium conventionally pertains to communication via written messages, we can clearly delineate more text-like similarities. There are, however, considerable intermediary and ambivalent qualities of pigeon-post communication that resemble both speech and writing. While letters are space-bound and static, they are also frequently directed or addressed to a specific recipient, which informs the stylistic and informative content of messages sent. Additionally, while less socially interactive than speech, written expressions in letters can still sharply convey attitudes together with information. Pigeon-post in war situations aptly demonstrate this feature; for example, a message delivered by a carrier-pigeon named Cher Ami brought instructions to cease

friendly artillery fire on an infantry battalion due to an earlier miscommunication of ally coordinates - the letter read "WE ARE ALONG THE ROAD PARALLEL 276.4. OUR ARTILLERY IS DROPPING A BARRAGE DIRECTLY ON US. FOR HEAVEN'S SAKE STOP IT" (Dash 2012). While information is foregrounded, the expression 'for heaven's sake' certainly conveys the anguish behind the instruction quite obviously directed at the recipient. Furthermore, this demonstrates a flouting of Grice's maxim of relevance considering the urgency of the situation and sole emphasis on information more than tone; we would expect to see such flouting common in speech more than text since the latter presumably leaves more room for better contemplative construction. The spontaneity and looseness of structure in presentation often detached from text likewise surfaces during wartime communication, since pigeon-post would commonly be used when radio (speech-based) comms were compromised. Hence, we observe messages that read, for example, "many wounded...". The ellipses of the copula verb 'are' in this statement reflects both speech-oriented urgent delivery of information (otherwise conventionally broadcast through radio), as well as the physical constraints of parchment dimensions since messages were restricted in size to enhance the efficiency and success rate war pigeons carrying vital intel (somewhat similar to the use of contractions and ellipses in other textbased mediums with character constraints like twitter).

Images in pigeon-post communication

Perhaps the most distinct quality of pigeon-post that cements its allegiance to text-based communication is its employment of graphically rich and rarely pronounced information. As mentioned earlier, the Franco-Prussian War provided the backdrop for pigeon-post's invaluable role in facilitating communication between besieged Paris and recipients outside the city perimeter, even reaching London. This entailed a uniquely configured operation that combined both elements of image and text with microfilm images of written letters. Hylton (1951), Dash (2012), and Levi (1977) write, "these letters were limited to a maximum of 20 words ... a single pigeon could fly in 40,000 dispatches, equivalent to the contents of a substantial book. The messages were then projected by magic lantern onto a wall, transcribed by clerks, and delivered by regular post"; "one film could contain, on average, 2500 communications. A single pigeon could carry up to eighteen such films"; "during the four months of the siege, 150,000 official and 1 million private communications were carried into Paris by this method." This demonstrates how technology such as microfilm were able to circumvent the compromise of constricted space for orthography and each pigeon's payload, not dissimilar to communication of extensive information via rudimentary compression technology we have witnessed in the 21st century.

In another instance of image in pigeon-post communication during wartime is observed from WW2; the figure below demonstrates one such message - a table-organized form filled out with written data: ("Carrier Pigeons" 2016)



Effects on Language

Encoding of written data

Similar to how sensitive data is encoded or encrypted on the internet, pigeon-post communication was one of the first mediums through which the communicative content of language could be concealed and covert, similar to how telegraphed Morse code was embedded with "code" that informed the interpretation of specific configurations of dots and dashes - for example, the three-dot/three dash/three-dot conveying the SOS signal. The image shown above boasts an example of such methods of coded script and the use of shortened abbreviations prevalent during wartime; its accompanying article reads, "senders would often have specialist codebooks in which each code group of four or five letters had a meaning relevant to a specific operation ... the code groups could then themselves be encrypted ... The message found at Bletchingley, Surrey in November 2012 [shown above] had 27 five-letter code groups ... without access to the relevant codebooks and details of any additional encryption used, it will remain impossible to decrypt" ("Carrier Pigeons 2016).

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Language structure

In broader contexts, pigeon-post communication likely facilitated the process of standardization; a series of reiterated and reinforced linguistic norms observed in written language (Romaine 2008). The imperative of standardization to expedite mutual understanding would have been amplified even further due to the often compelling and critical contexts in which the information needed to be communicated. Additionally, the aforementioned spatial restrictions compounded the want for succinct and concise language, hence the recognition and ellipses of stop-words (such as copula verbs, observed above) was frequent. The suggestion that pigeon-post has maintained its linguistically structural links to modern-day email is substantiated by a similar structure prominent in email subjects where stop words are commonly ellipsed.

The advent of pigeon-post and with it the incumbent specialised breed of pigeon provided the social and contextual template for the coining of new English words, as with any innovation or introduction that warrants any kind of linguistic reference. Derived from the wild rock dove, domestic homing pigeons were so-named for their instinctive and inherent capacity to navigate 'home', obviously redicated on which the modus operandi of pigeon-post was established. Here, we witness the suffix '-ing' added to the morpheme 'home' which changes the noun to a 'verbal noun', denotative of both function and "action of going home"; records suggest the etymology of 'homing' can be traced to 1765 with generic references to pigeon-post, while attestation of 'homing pigeon' is traced to 1868. Proceeding the formation of this new reference term, word-change extended, so to speak, through the process of shortening. The bound morpheme 'er' was instead suffixed to 'home' while 'pigeon' was ellipsed, creating the abbreviation 'homer'. Interestingly, this might also be interpreted as semantic broadening, since 'homer' refering to "pigeon trained to fly home from a distance" was first attested in 1880 while 'homer' as a baseball reference for "home run" was first attested in 1868. (source)

Effects on Society; Past and Present

Sneakernet

The prevalence of pigeon-post throughout history has given rise to a unique coincidence between old-school means and new-school technological ends that have spawned a least 2 derivative mediums of information communication. This describes the viable implementation of a 'sneakernet' to

5

communicate data such as 1) Internet protocol (IP) traffic - known as IP over avian carriers; and 2) digital photographs on flash media from rafting photographers to tour operators (Human 2007).

Wartime communication

Pigeon-post has been observed to have maintained its utility for war and conflict-based communication of sensitive and incriminating intel; for example, in 2016, Islamic state militants, under the accusation of Jordanian officials, had allegedly employed pigeon-post to deliver operative instructions (Fox News Channel 2016). Furthermore, Moore (2011) reports that 10 000 pigeons are being trained for military communication as a contingency plan in China.

Personal mail

Furthermore, outside the realm of official or administrative emergency response, that is, simply personal communication, pigeon-post has maintained a degree of contemporary relevance in contexts where the conventional means of communication are not accessible; for example, a carrier pigeon was intercepted in China's Jiangsu Province with a pigeon-post message that proved to be a short affectionately-written letter that read, "Lili, I love you!!! With love from Xiaojun" (He 2017).

Conclusion

Pigeon-post has proven to be one of the most effective and reliable mediums of communication since early civilisation up to the 18th century, and it has demonstrated its capacity for efficient and competent communication even in contemporary times. While the extent and efficiency of its utility remains constrained by the physical limitations associated with text and parchment, its methodological shortcomings notwithstanding, modern day ubiquitous mediums of communication have evidently incorporated lasting elements from pigeon-post. In our current age, rife with massive infrastructural advancements that continually break communicatory boundaries of time and space, perennial instability and the ever-present imperative of open channels has rendered pigeon-post yet relevant.

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