



The effects of perceived dominance in persuasion

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Abstract

An experimental investigation of the relationship between communicator dominance and persuasion is reported. In the study, persuasion was examined as a function of experimental treatments that differed only in the perceived dominance of stimulus embedded within a text. Perceived dominance of the stimulus is operationally defined as the degree to which the stimulus makes the recipient feel submissive (high) or powerful (low). The experimental stimuli and the quantitative measurements of dominance are derived from affect control theory and a research tool that has been developed from that theory, the International Affective Picture System. The hypotheses were generally supported by the results of the data analysis. Relationships were found between perceived dominance and a) increased opinion agreement and b) increased trustworthiness of communicators. Possible implications for communication studies, as well as on research on affect control theory are discussed, as are limitations of the current research.

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Preface

The idea for this work was developed by Jón Karl Stefánsson who then suggested it to Frank Siebler as a topic for the MA thesis.

The design of the empirical study was largely developed by Jón Karl Stefánsson.

Ine Camilla Bjørnsten assisted with the Norwegian text used in the experimental materials.

The study itself was conducted solely by Jón Karl Stefánsson.

The data analysis was a joint operation between Jón Karl Stefánsson and Frank Siebler. Due to Siebler's experience with the statistics package SPSS, his contribution saved much time.

The writing-up was done by Jón Karl Stefánsson, who received comments on earlier drafts from the supervisor.



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The effects of perceived dominance in persuasion

Human beings are not adept at accurate causal judgments, often deviating from what purely rational models might predict (Roese,1997).

It has been suggested that the powerfulness that a person or object conveys has great influence on interpersonal relationships and communication. According to Russel (1938) “the fundamental concept in social science is Power, in the same way that Energy is the fundamental concept in physics” (p. 10). The importance that Russel gives this variable was not, however, manifested immediately in the practice of social psychology. This was noticed by Cartwright (1959) who commented: “Both early social psychology and modern society recognize the importance of power ... [but if] we examine social psychology since the beginning of its scientific epoch, we search in vain for any concentrated attack on the problem” (p. 2). As we shall see, despite the importance linked to this variable, powerfulness, in communication research it is usually left out as a factor that influences persuasion.

The present study is performed with several intentions. Its first aim is to establish a place for social power, measured through the effect of perceived dominance on opinion agreement, in communication research. Secondly the study attempts to integrate affect control theory to important models of communication. Finally, if evidence is found for a relationship between dominance, as defined through affect control theory, its consequences for important communication research models will be evaluated.

Social power

Social power has been defined as “the degree of control that a person or a group has over other persons or groups” (Reber & Reber, p. 553) or simply the “ability, right, control and

authority to do or act” (Hornby, 1984, p. 652). It can be manifested as the ability to compel another to act against his or her will and, at the same time, the ability to withstand such effects from others (Reber & Reber, p. 553). Similarly, German sociologist Max Weber defined power as “the probability that one actor within a social relationship will be in a position to carry out his own will despite resistance, regardless of the basis on which this probability rests” (Weber, 1978, quoted in Barbalet, 1985).

Power is thought by some theorists to be divisible into components. Coleman (2000), for example, defines power as “the ability to make things happen or to bring about desired outcomes” (p. 121) and distinguishes between several modes to explain this variable. These include power as a dynamic, where power is determined by the characteristics of the person, the situation, and the interaction of these two factors; environmental power or the degree to which an individual can influence his or her overall environment; relationship power, or the power to influence another person, and personal power, or the degree to which a person can satisfy his or her own desires (p. 122). Similarly, French and Raven (1959) identified six different bases of social power in interpersonal relations and communication. These were coercive power; which resides with a person who has the ability to punish a target for non-cooperation; reward power, which is in the hands of whoever can offer rewards to a target for compliance; legitimate power, one in which the targets confer on an agent because they believe that he or she has the right to expect cooperation; referent power, which has for its source desirable and attractive personal qualities of the agent that leads to recipients’ desire to associate with him or her; and expert power, which stems from the extensive information or knowledge that recipients perceive the agent to have (French & Raven, 2003)¹.

¹ Incidentally French and Raven’s taxonomies are closely congruent with Max Weber’s classifications of the concept *Herrschaft*, or authority (Giddens, 2006).

Power and persuasion

There are various means to measure power and its effect of individuals and society at large. In the current study the focus will be on its effect on persuasion. This is not counter to intuition considering that persuasion is a major means to exercise social power. According to Reber and Reber (2001) social power can be upheld with coercion or violence, but “persuasion is a more common vehicle for exerting control” (p. 513). But as we shall see, for some of the most important models for persuasion studies Cartwrights comments still hold. Despite the importance linked to power, it is largely ignored as a factor that influences persuasion.

Traditionally, studies on the effects of social factors on the attitudes and behaviours of people in communication settings identify several interdependent components that should be studied independently. As an example, in his study of advertising effectiveness, McGuire (1978) distinguished between five components of persuasive communication that could be fit into a model of persuasive communication. These were source, channel, message, receiver, and destination. This classification has its origin in Lasswell’s (1948) famous contribution to communication studies in which he described that a “convenient way to describe an act of communication is to answer the following questions: Who says what to whom with what effect?” (p. 37). This way of describing communication was adopted by Carl I. Hovland and his colleagues in Yale University and the United States Army. Their approach is often referred to as the message learning approach, or the Yale model of communication research.

The Yale model offered research methods and variables for these that have since been used extensively by subsequent researchers. In a series of extensive studies presented by Hovland, Janis, and Kelley (1953), four so-called mediating processes to message learning were identified. According to their model the recipient must pay attention to the message, comprehend it, identify incentives for attitude change, and retain the information in the

message. In addition to the message arguments, three variables were expected to affect the mediating processes. These were the source of the message, the medium through which the message was delivered, and the recipient of the message. Together, these processes and variables had the potential to produce change in the receivers' beliefs, attitudes or behaviour. More recent persuasion models base much of their theoretical underpinnings on the tradition upheld by Hovland's model.

Numerous models on persuasive communication exist (for extensive reviews see Cameron, 2009, and Jowett & O'Donnel, 1999), but in the current study, the focus will be on the approaches exemplified by the elaboration likelihood model and the heuristics systematic models. In addition to being among the most widely used and studied models of persuasion, (Cameron 2009), these models place high focus on the interplay between source- and recipient factors. The current study's primary focus, the effects of perceived dominance on persuasion variables, is an example of such interplay.

According to the Elaboration Likelihood Model (Petty & Cacioppo, 1981), people follow persuasion attempts follow two paths, or routes. When a receiver is motivated and able to consider the information, he or she is likely to elaborate the message thoughtfully and scrutinize the quality of the arguments. Under these conditions the receiver is said to follow a central route of elaboration. This type of elaboration requires effortful cognitive processing and the resulting attitude of the topic involved relies on the persons own cognitive responses as well as message strength and quality. This sort of elaboration is highly dependant on the receiver's involvement, or how much time, effort and energy he or she is willing to invest in considering the message.

When the receiver is neither motivated- nor able to scrutinize the message he or she is likely to follow a peripheral route of elaboration. In this, the receiver is expected to rely on less thoughtful processes than are exemplified by the central route. These might include simple

heuristics or simple cues, such as the length of the message, or source characteristics (Priester and Petty, 2003).

The heuristics systematic model differs from the elaboration likelihood model in that it is explicitly a dual process model; that is, it is assumed the two types of message processing are qualitatively different although they have reciprocal effects. The elaboration likelihood model is a single process model where it is assumed that message elaboration has levels of central or peripheral processing. In the heuristic systematic processing model, systematic processing is considered as more effortful and capacity limiting than heuristic processing. For this reason, it is assumed that heuristic processing predominates when motivation or capacity for effortful processing is low (Chaiken, 1980).

Credibility

A person's level of credibility directly implies the extent to which others find it easy or difficult to believe that person (Hornby, 1984, p. 200). According to Berlio et al (1978) source credibility is something that possesses the quality that "the more of "it" the receiver is perceived to have, the more likely the receiver is to accept the transmitted information" (p. 562). Perceived credibility is considered the most important source characteristic in the Yale Model and an almost linear relationship is assumed to be between perceived credibility and persuasive power: The more the speaker is perceived to possess credibility, the more persuasive his or her message is believed to be (Hovland & Weiss, 1952, quoted in Pratkanis et al., 1988). This is also apparent for today's popular models and the same three factors dominate in research on source credibility. These are expertise, or "the extent to which a communicator is perceived to be a source of valid assertions" (Hovland, Janis, & Kelley, 1953, p. 21), trustworthiness, or "the degree of confidence in the communicator's intent to communicate the assertions he considers most valid" (ibid) and attractiveness.

These three variables, and especially expertise and trustworthiness, have repeatedly been used to define source credibility. As for recent examples, Ohanian (1990) identifies source credibility as a three dimensional construct composed of expertise, trustworthiness, and attractiveness. In this, source credibility implies a “communicator’s positive characteristics that affect the receiver’s acceptance of a message” (p. 41). Newell and Goldsmith (1997) give expertise and trustworthiness a higher status than Ohanian and Hovland and explicitly define source credibility as “the perceived expertise, trustworthiness, and/or attractiveness of the information source” (p. 235).

As is apparent, expertise, trustworthiness, and attractiveness are not only thought to be important factors of credibility; they are often used as the very definition of credibility. Placing such a high emphasis of these three factors, though, is a haphazardous endeavour for several reasons. Firstly, if it is found that other factors influence credibility as much or more than expertise, trustworthiness, and attractiveness, the definition either becomes false or incomplete, or these other factors lose their rightful place in being defining for credibility. Secondly, it can never be concluded for certain that the effects of these three variables are not moderated or mediated by still other variables. Finally, Berlo, Lemert and Mertz (1969) criticisms of the studies on credibility and persuasion performed by Hovland, Janis, and Kelley (1953) still hold and must be addressed. In the Hovland et al studies it was suggested that credibility was comprised of two variables; expertise and trustworthiness. These variables, Berlo et al. pointed out, were assumed a priori as attributes of credible sources but were not derived from scientific observations. Additionally, the variables used in Hovland’s that supposedly increased credibility were exclusively dealt with as attributes of the senders themselves, while it should be intuitively more accurate to look at what receivers experience and perceive of the sender

Other factors have been identified as having effect on source credibility, which include concepts closely related to social power. However, these are an exception. In an extensive review of by Pornipitakpan (2004) only four studies were identified as naming concepts related to power (dynamism, potency, authoritativeness, and power). All were criticized for “selecting scales haphazardly, using similar names for factors containing different scales, and using certain credibility factor structures as if they were generalizable far beyond the raters, sources, and factoring procedures that generated them”. It was also found that “scales representing factors of source credibility changed over time and that the number of significant factors and their resulting amount of variance also changed over time” (Pornipitakpan, 2004). To date, power is not a part of the elaboration likelihood model or the heuristics systematic model.

Operational definition of credibility

What Berlio et. als (1968) criticisms imply is that credibility research should focus on finding what factors increase or decrease the likelihood that the receiver accepts the persuasive statements of the sender. An accurate estimate of credibility is therefore that which increases receivers’ tendency to accept the sources information. Additionally, the component which is most important to study for effects on credibility is not the source itself and the objective qualities of him or her, but the receiver’s perceptions of the source and message situation. In other words, what is important for persuasive purposes is not that the communicator possesses qualities that make him or trustworthy, expert, or attractive in itself, but how the communicator is perceived and emotionally experienced by the receiver. An accurate operational definition of credibility should be the extent to which the communicator induces attitude change. If attitude change is not found, the communicator is by definition not

credible. In other words, Berlio's et als. (1969) criticisms imply that there is no need to include influential factors such as trustworthiness in the definition of credibility.

Attitudes

The goal of persuasion is, according to Reardon (1991), "to change someone's attitudes and/or behavior" (p. 5). One of the more widely used definitions of an attitude is that it is a "mental and neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related" (Allport, 1935). According to Eagly and Chaiken (1998), attitudes are lasting, general evaluations of people, objects, or issues that operate like schemas to organize information and guide behaviour. They define attitudes as "a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor" (p. 269). Attitudes are closely linked to people's beliefs; a variable that has been defined as: "emotional acceptance of some proposition, statement or doctrine" (Reber and Reber, 2001), and "the feeling that something exists or is true" (Hornby and Ruse, 1988).

Attitude formation takes place on several levels. According to Wood (2000), when forming an attitude toward an object we need to retrieve relevant information about it from memory and at the same time in formation of a standard against which it can be evaluated. The relevant information retrieved from memory to formulate an opinion on an object may even come from an influence appeal even though the people involved are unaware of this. In such an instance the judgment of others is unwittingly adopted as one's own (Wood, 2000).

Attitudes are highly context dependent and people can draw on a wide range of information and inference rule to arrive at an evaluative judgment and contemporary judgments about an object could be constructed on the spot, based on the information and inference rules that are most accessible at that point in time.

Attitudes are a troublesome variable. According to Norbert Schwarz (2001) they "are a hypothetical construct, invented by researchers to account for a body of phenomena. We cannot observe attitudes directly but infer them from individuals' self-reports and behavior" (p. 438). It is therefore not a straight-forward endeavour to define it, measure it, or to locate theoretical underpinnings of this variable.

Emotions

One method to measure attitudes is based on the conception that attitudes are best explained as affective responses to stimuli that can manifest in various means, for example by behavioural tendencies or cognitive agreement. However, in order for emotions to be a usable concept for communication studies, they must be converted to measurable variables.

One way to make measures possible is to classify automatic emotions and assign binary values to these. When researchers try to distinguish automatic emotions different approaches exist. Arnold (1960) and Lazarus (1968), for example, proposed an appraisal theory of emotions according to which emotions are elicited and differentiated on the basis of the subjective evaluation of an event on a set of standard criteria. According to this paradigm appraisal is a "cognitive evaluation process that can produce affect and emotion because the evaluation is based on criteria that reflect personal relevance of needs, goals, and values" (Scherer, Dan, and Flykt, 2006, p. 109). Appraisal is in this sense intrinsically context and person dependant since individuals differ widely in their assessment of what is pertinent to them.

Another popular model distinguishes between emotions by sets of emotional responses that suggest underlying, basic, and automatic emotions. According to these theories emotions have evolved by means of their adaptive value for dealing with fundamental life tasks (e.g. Ekman, 1992; Plutchik, 1980). Humans, according to this view, possess a set of basic values that are

recognizable by characteristic facial expressions. Ekman, Friesen and Ellsworth (1972) found evidence for this in cross-cultural comparisons of recognition of facial expressions and suggested that humans have at least six basic emotions in their repertoire; joy, sadness, fear, disgust, anger, and contempt. However, approaches that suggest sets of emotion types have an operationalizational problem. According to Grimm, Kroschel and Narayanan (2007), measures of important variables are often highly dependent on the researchers' interpretations, and this makes it hard to make quantitative comparisons and measures.

The dimensional approach

According to another set of theories, emotions have a gradual and continual form that can be measured by using polar opposite categories, or dimensions. According to these theories emotions have evolved from a motivational basis to a simple factorial model. This approach differs from those where automatic emotions are distinguished by using sets of emotional responses in that expressions of emotions are not considered in binary values; i.e. angry or happy, but take any arbitrary value in between dimensions. Emotions are conceived to be composed of a different number of attributes that are associated with emotion primitives. William Wundt (1896) pioneered this approach when he suggested that emotions could be mapped on a three dimensional space. Wundt identified three dimensions of emotions; pleasantness vs. unpleasantness, excitement vs. depression and tension vs. relaxation (Wundt, 1896). Recent repetitions of his approach include Mehrabian and Russell's (1980) three dimensional model of emotions, where the third variable is dominance-submissiveness, and Lang's, Bradley's and Cuthbert's model (2005) where the third dimension is labelled dominance (see also Kehrein, 2002, and Grimm, Kroschel, & Narayanan, 2007). Concrete operational definitions of emotions and associated variables have made this approach highly

applicable in studies ranging from automatic recognitions of emotions in speech (Grimm et al, 2007) to racism (Henry & Sears, 2002).

Mediational theory of meaning

According to Burgess and Lund (2000) the mediational theory of meaning, by Osgood, Suci, and Tennenbaum (1957), is the most extensive and most used of all dimensional theories of meaning and emotions. In to this theory, meaning is assumed to be represented by a semantic profile of ratings on a set of adjectives, distinguished by a set of semantic features and signified as a vector in an n-dimensional semantic space (Osgood et al., 1957, 1975).²

Two types of meaning that the cognitive system processes differently are identified. First, the denotative meaning of a word can be thought of as its encyclopaedic definition; the knowledge based feature of the word. The second type of meaning, affective meaning, are sentiments and connotations of the focal object. This affect based meaning mechanism supposedly reveals particular dimensions of meaning that people use to qualify their experience. The mechanism was thought as more basic and automatic than the denotative meaning mechanism and therefore the focus of the mediational theory was to measure this type of meaning (Osgood et al., 1975).

The semantic differential technique was designed to obtain an objective, quantitative measure of affective meaning. The technique includes rating scales that differentiate attitudinal intensity on the basis of a person's subjective understanding of the connotative meanings of words. With this the researchers wishes to plot a psychological distance between

² Factor analysis was used to extract an n-dimensional solution for what affective meaning people hold towards things. In order to achieve this, Osgood and his associates performed numerous experiments where subjects made Likert-scale judgements for several adjective scales for concepts. Adjective polar opposites belong to one of these groups and adjective that correlate strongly with each factor were used to measure the score on that factor (Osgood, Suci, and Tennenbaum, 1957).

words by mapping a subject's connotations of them. Low ratings indicate that the word is better characterized by the adjective defining the low end of the scale. High ratings indicate that the word is better characterized by the adjective defining the high end of the scale. The middle conveys a sense of neutrality. The outcome of a semantic differential is an indicator of the affective meaning the subjects hold toward an object and by constructing scales and items carefully, it is supposedly possible to identify subtle nuances of such affective meanings (Osgood, Suci, & Tennenbaum, 1957, Jowett & O'Donnell, 1999). By using factor analysis on a huge data-pool of semantic differential ratings from hundreds of participants on hundreds of concepts, three factors were repeatedly found to account for the majority of judgements. Extensive cross-cultural studies supported the view that most of the variance in emotional assessments was accounted for by these three major dimensions (Osgood et al., 1975). Osgood assigned labels to these factors intuitively. The largest factor he called E, or evaluation. This factor explains how much the subject likes or has good will towards the object; in essence the dimension good – bad. The second factor, P or potency, refers to the powerfulness or strength of the object, as exemplified by adjective opposites such as powerful – weak and big – small. The third factor, A, or activity, represents the activity, or inactivity, of an object, as exemplified in adjective polar opposites such as fast – slow, moving – still etc. Osgood suggested an evolutionary explanation for the existence of these three dimensions. By deriving a meaning of an object from few easily manageable features that could be processed automatically, the organism was better able to make instant in emergency situations (Osgood, 1967).

The basic assumptions of the mediational theory of meaning have been supported somewhat by modern neurological studies. According to Suzuki et al (2004) different brain modalities are modified during judgement of affective meaning related to the three main factors of affective meaning; that is, the factors have different information processing bases, especially

with respect to their sensory relevance. More specifically, it has been found that the right superior temporal gyrus and the right inferior parietal lobule are associated with activity ratings, while the brain regions around the central fissure are related to potency ratings. As to sensory relevance, it has been suggested that the scales related to the activity factors often refer to auditory perceptions (adjective opposite such as dynamic-static, excitable-calm, noisy-silent) while potency factors often involve adjective scales related to tactile perceptions (as evident in adjective opposite such as soft-hard, smooth-rough etc). The Evaluation factor is “characterized by scales such as likeable-repugnant, beautiful-ugly and unpleasant-pleasant” and “associated with subjective emotional concepts that are not dependent upon sensory processing or modalities”. It was hypothesized that the medial prefrontal cortex, amygdala, the insula, the orbito frontal cortex and the anterior cingulate cortex could be connected to the evaluation factor.

Affect control theory

The mediational theory of meaning was later adopted in the *Affect Control Theory* of Heise (1979). According to this model, all cognitions evoke affective associations and attitudes can be thought of as affective response to the cognition of objects (Heise & Smith-Lovin, 1981).

In affect control theory, affective meaning refers to subjective evaluation of role identities. According to Heise (1979), fundamental sentiments are culturally shared feelings evoked by the mental representation of a concept. These can be social identities, behaviours, personality traits etc. Emotions are described as singular experimental episodes at discrete points in time while transient impressions are the emotions evoked in certain situations. Deflections are how different they are from the feelings that are expected to be evoked (for example the affect normally experienced with for certain social roles). These deflections and the emotions experienced that result from them can be estimated by regression equations.

These predict impressions by measuring the amalgamation of affect when two concepts are combined (Wiggins, Wiggins & Zanders, 1994).

Authority as a role identity

In the affect control theory, role-identities are assumed to be connected with emotions and proponents of this theory, such as Schneider (2004), argue that social structural properties should be reflected in their affective representation. The affective meaning of role identities is thus thought to reflect their structural meaning and profiles of affective meaning are used to measure sentiments that are attached to specific role identities in particular cultures.

Authority, like other role identities, is in this sense a social structure embedded in subjective representations of culture (Scherer, 2006). In probing what structural pattern legitimate authority assumes, Schneider (1999) found a strong tendency for concepts that are associated with authoritative role identities (doctor, mother etc.) to share a common pattern, exemplified by high evaluation and dominance, but low arousal ratings. Schneider explains the reliable results showing authority figures sharing a profile of affective meaning by referring to Max Webers' rational bureaucratic principle, which involves rules of legitimation that establish the authority concept. A rational bureaucratic society is a stratified organization where coercion from superiors is legitimized by subordinates when the coercions adhere to internalized and accepted norms. An authority, according to this model, is a social identity that others in the society have internalized as being legitimate. Deviations from what is considered legitimate, such as using methods that have not been approved or a role identity that has not been legitimized as an actor that can use coercion results in non-authority (Schneider, 1999).

The fundamental paradigm of affect control theory is that people control social interactions by striving to maintain feelings about the situation they find themselves in (Scholl et al. 2008). When a person is perceived as being a part of the role identity that Schneider has

labelled authority, affect control theory therefore predicts that the recipient will automatically strive to control the social interaction by behaving in such a way that maintains the feelings about that situation and role identities. When the focal object is an authority the appropriate behaviours to that situation are those which maintain the legitimacy of that authority identity. If agreement, compliance or conformity are behaviours of low discrepancy in such a situation, these behaviours will be expected to prevail.

Recognizing power

If social power and legitimacy are interpreted by the cognitive system as an authority role-identity that triggers low-discrepancy type behaviours that include increased opinion agreement, by what mechanism is this recognition brought about? One explanation is that the cognitive system implicitly interprets perceived dominance of an object as a cue for social power. An individual experiences social power by dyadic agonisms or direct contact with people who occupy higher strata of a dominance hierarchy and, therefore, possess means by which they can apply rewards or punishments for the individual's behaviour. Repeated pairing of a person experiencing perceived dominance of more socially powerful persons makes perceived dominance an automatic affective response.

Dominance and hierarchies

Denotatively, dominance refers to a relationship in which one thing is in a position to control over another, and also a tendency to exert control over the behaviour of other members of a group of other members of his or her own species (Reber and Reber, 2001, p. 213). In simpler terms, Hornby (1984) defines the adjective 'dominant' as "having control, authority or influence" (p 258).

In comparative psychology, dominance hierarchy refers to the ranking of members of a group according to relative importance or dominance (Reber & Reber, p 58). In this, people assume roles that occupy different and predefined levels, or strata, in an organization. At the macro-level, dominance hierarchy refers to an organizational structure which is characterized by a system of chain of command. In such a structure, the institutions that govern national society have legal rights to take various measures to uphold the structural form (Fritz and Cromwell, 2001).

According to Fritz and Cromwell (2001) dominance hierarchies are the most common organizational structures of modern nation-states. Similarly, Coleman (2000) holds that societies worldwide organize according to group-based hierarchies, with dominant social groups possessing a disproportionate share of positive social value such as wealth, status, health and so on. The possession of these resources is an important source for these groups' and individuals' social power. Those who need these resources but do not possess them must rely on these groups' decisions and are vulnerable to the consequences of the possible unwillingness of these to lend access to their properties.

At the micro-level, the dominance hierarchical structure has different effects. A person's interactions within the hierarchy are generally, albeit not exclusively, restricted toward those who are situated at the nearest level to that which he or she occupies. A person is generally to answer commands given by people that occupy the next level in the hierarchy, but have little contact to even superior authorities. The power relationships in a hierarchical structure are thus simple. The subordinates are to obey orders from superiors, but not vice versa. Society is thus organized in a way that authority increases as one travels higher up the hierarchy.

In interpersonal relation dominance has been defined as the ability to prevail in dyadic conflict situations (Strayer & Strayer, 1976). The defining aspect of this type of dominance is the outcome of interpersonal conflict, or dyadic agonism. This denotative classification of

dominance, however, demands actual outcomes of dyadic agonisms to become manifested. The question is, how do people recognize the dominance of an object without experiencing dyadic agonisms directly?

Socialization and authority

Human are rarely isolated beings that can be studied in a vacuum. We are a part of institutions and a culture of distinct self-perpetuating groups, or societies (Hornby, 1974). How these systems are organized shapes our cognitions and in order to explain how common life experiences might play a part in shaping how we form attitudes it important to recognize the impact of socialization.

Socialization has been described as “the social processes through which children develop an awareness of social norms and values, and achieve a distinct sense of self” (Giddens, 2006, p. 1036). This is the process were we learn, accept and internalize societies’ norms, beliefs, judgments and values and learn to think of ourselves as parts of different facets of social life and through the process achieve a picture of ourselves.

Schneider (1999, 2004) contends that cultural norms or rules are the source of power in contemporary society.³ These refer to “[r]ules of behavior which reflect or embody a culture’s values, either prescribing a given type of behavior, or forbidding it” (Giddens, 2006, p. 1027). On the opposite, deviance is “non-conformity to a given set of norms that are accepted by a significant number of people in a community or society” (ibid, p. 794). Norms can be expected to be supported, and deviance is refrained, by social sanctions, or “socially applied forces which reward or restrain behaviour” (Giddens, 2006, p. 460). Such sanctions vary, from informal disapproval to physical punishment or execution and in modern rich societies it is possible to distinguish between two types of social sanctions. The first of these is where a

³ To explain this postulate, he sites Max Weber’s bureaucratic principle as the accepted source of legitimizing power in western cultures.

group of people who have been designated as having authority to do so actively punish those who deviate from rules put forth in institutions of formal governance. These can be actors of the modern state, local district authorities etc. In these circumstances, deviance is labelled as crime and the rules are laws and regulations. The second type of social sanctions is informal sanctions. These are carried out by other members of society, not constituting a formal facet of designated authority. These can be peer groups, workmates, family members et cetera. Unlike formal sanctions, which are often rigidly filed and classified as laws and regulations, informal social sanctions are not easily definable and it may take complex research to identify them. Peers can use various means to exert sanctions on those who deviate from accepted norms. A person might be ridiculed, thereby lowering his or hers regards in the peer group, a person making an improper comment on a popular group might be met with criticisms and loss of friends and so forth.

Authority: Power and legitimization

In formal settings, authority refers to institutionalized and legal power as manifested within a social system as well as the individuals who wield such power (Reber, and Reber, 2001, p. 513, Weber, 1978). Kelman and Hamilton (1989) commented that: "authority involves two components: the right to command others and the power to do so" (pp. 53-54). Similarly, Hornby (1984) defined authority as "the power or right to give orders and make others obey" (p. 52). This implies that authority is composed of two separate variables. The first of these is power, or ability to bring about the desired behavioural outcomes that are implied in the commands. The second of these; the right to command others, has been labelled legitimization (Schneider, 2004).

According to Tyler (1997) two theories on legitimization of authority are dominant in current social psychology. First, resource based theories suggest that instrumental indices of

experience determine the impact of authority and link legitimacy to the favourability of the resources that individuals receive from groups and group authorities. According to this model, the evaluation of rules and authorities is linked to resources received in the past or expected in the future, task competence, people's judgements about the likely future behaviour of others, outcome fairness, procedural judgements and judgements about investments in group membership.

Another approach to legitimization stems from identity based theories. These suggest that relational indices of experience determine the impact of legitimacy and link legitimacy to people's concerns about their social identities from group memberships. How authorities treat a person serves as an indicator of his or hers social status, which in turn, influences his or hers social identities; feelings of self-worth and so on. According to this model, when people feel that they are respected members of groups, they voluntarily follow group authorities' orders. Social identities are understood from their position in their social groups and experiencing positive regard from the authority is associated with ease in complying, as forecast by identity based theories of legitimisation. When the authority figure appear trustworthy, kind, etc. and treat their subjects with respect, their orders are more easily followed. According to this approach, when people perceive that these authorities express that they have status, they respond with deference (Tyler, 1997).⁴

From the standpoint of these theories the factors observed to influence perceptions of authority stem from the benefits the people involved felt they received, both in terms of self assurance and personal gain, influence how easy they found it to obey authorities.

⁴ Tyler (1997) summarizes the social phenomena of legitimacy of authority as follows: "*People within organized groups often internalize their feelings of obligation to obey group rules and the decisions of group authorities. They believe that group authorities and rules are legitimate and, hence, entitled to be obeyed. Because of this belief, group members voluntarily accept and obey rules and decisions from group authorities* (p. 330)".

Legitimization in affect control theory

In affect control theory, legitimisation is a core aspect of authority and it is not restricted to the macro level of institution, but a part of the cognitive structure of the actor (Schneider, 2004). Schneider explains legitimacy as follows: “[B]eing coerced is an unpleasant experience that generally leads to resentment toward the coercer. But if the coercion is legitimated, he or she is an authority and may be evaluated positively... legitimation of authority means that the authority's power is understood by others, and need not be communicated through expressive actions” (p. 9).

When legitimization is internalized “people often behave in accordance with the rules in situations without rewards or the threat of punishments” (Tyler, 1997). When this has happened obeying the legitimized authorities’ orders is part of the normal behaviour repertoire of the person obeying, and since this should not be an emotional experience, it should not be very memorable either.

Utilitarian functions of attitudes

Instrumental adjustment or utilitarian function of attitudes refers to a functional paradigm of attitude formation where the usefulness of holding a certain attitude is held to be crucial to its acquisition. In this approach, originally developed by Katz (1960), a key motivational factor to attitude evaluation is if holding a certain attitude is objectively beneficial or harmful to the receiver.

Several theorists have observed that attitudes, beliefs and other receiver variables have utilitarian functions. For example, according to the elaboration likelihood model an important feature of attitudes is motivation to hold subjectively “correct” ones. These correct attitudes “are helpful because they often allow people to gain rewards and avoid punishments by

approaching helpful objects and avoiding dangerous ones. Holding correct attitudes is important if people want to act on their attitudes” (Petty, Rucker, Bizer and Cacioppo, 2004, p. 68).

Also, according to Cialdini (1987, 2001) who identified authority as one of six main weapons of influence, we are trained to obey authorities from early on; by caregivers, religious institutions, schools etc. In such settings it has substantial utilitarian value for a person to obey authorities and internalize their values. The child recognizes that caregivers, teachers and other authorities have more knowledge and it is a handy heuristic to assume that these are usually right. But, even more importantly, these people have the power to control reward and punishment for the child’s behaviours. Believing and obeying an authority becomes automatic and implicit after this learning takes place.

Because of the social dominance structure in contemporary industrial societies, believing socially powerful individuals is more important than believing less powerful individuals. In other words, it is of instrumental value for a receiver to agree with a powerful person.

Stimuli materials

The picture stimuli used in the current study are apprehended from the International Affective Picture System (IAPS; Lang, Bradley, & Cuthbert, 2008)). The IAPS is a collection of picture stimuli that have been rated in terms of dimensions of affective meaning that is based on, and closely resemble these identified by Charles Osgood et. al (1967). The set provides “the ratings of affect for a large set of emotionally evocative, internationally-accessible color photographs” (ibid, p 2). The IAPS has been developed alongside similar collections for words (the Affective Norms for English Words (ANEW), Bradley and Lang, 1999), and sounds (the International Affective Digitized Sounds (IADS), Bradley and Lang, 1999) in

order to provide “standardized materials for research on emotion and attention” (Lay, Bradley, and Cuthbert, 2002, p. 1).

The labels used for the three dimensions of affective meaning for the IAPS are pleasure (*P*), arousal (*A*) and dominance (*D*). Correlation studies have revealed that these are nearly synonymous to Osgoods dimensions, evaluation, activity, and potency. The dimensions were assessed for the IAPS by using the Self-Assessment Manikin (SAM); an affective rating system devised by Lang (1980). This is a non-verbal rating instrument for affective meaning specially designed for cross cultural researches. It uses a graphic figure depicting values alongside each dimension on a continuously varying scale to indicate emotional reactions. The stimuli and the ratings of these are therefore not language dependent and cross-cultural comparison studies (e.g. Ribeiro, Pompéia, & Bueno, 2005, and Verscuere, Crombez & Koster, 2001) have concluded that the stimuli pictures used in the IAPS can be used as an affective rating tool across cultures due to a high correlation found across the populations.

Operational definition of dominance

There are numerous ways to define any term. Here, as is done in affect control theory where a distinction is made between a denotative and affective meaning of objects, a distinction was made in this study between the denotative meaning of objects and how they are perceived. Specifically, the focus was on the perceived trustworthiness and dominance of the objects involved in the study. As Coleman (2000) commented regarding the power variable: “[F]or power to be effective, it doesn’t necessarily have to be the result of actual resources owned and strategies employed by people but, in some circumstances, by what they are merely perceived to have” (p. 125).

In the current study perceived dominance refers to an affective evaluation of stimuli and is defined as the degree to which the focal object, be it human or not, makes the recipient feel

submissive (high dominance of focal object), or powerful (low dominance of focal object). The definition implies an inherently reciprocal relationship between perceived dominance of the focal object and recipients' affective responses toward observing it. This operational definition is consistent with existent research and is directly derived from how the experimental stimuli used in the current study were quantified. This should be seen as positive in regards to construct validity. Specifically, the ratings for the dominance variables for the pictures in the IAPS had been collected by asking participants to indicate on a nine point scale how much the pictures made them feel submissive, dominated, in awe etc. as opposed to feeling in power, dominant and related terms (Lang, Bradley, and Cuthbert, 2008).⁵

Perceived authority and trustworthiness

Interestingly concepts that are commonly used to denote trustworthiness in communication studies tend to share the profile of affective meaning that Schneider has labelled authority. For example, concepts that are used to measure trustworthiness in Applbau and Anatol (1973) and ratings for three dimensions of affective meaning generally tend to share Schneider's authority profile when compared with the same concepts that have been rated for dimensions of affective meaning (from Bradley and Lang, 1999). Specifically, words such as honesty and trust are highly evaluated, highly dominant and have relatively neutral arousal ratings⁶. Concepts used to denote untrustworthy endorsers, on the other hand, tend to be negatively evaluated low on dominance scores and highly arousing⁷. This does not need to be surprising considering how the concepts trustworthiness and legitimized authority are defined. That an

⁵ . It should be noted that high dominance of the speaker is therefore indicated with a low number, while low dominance is indicated by a high rating.

⁶ e.g. the concept honesty has the values 7.75 (evaluation), 6.75 (dominance), and 6.00 (arousal) and trust has the ratings 6.68 (evaluation), 6.61 (dominance), and 5.30 (arousal) on nine point scales where the rating 5.00 signifies a neutral value (Bradley & Lang, 1999).

⁷ e.g. the concept sinful has the values 3.00 (evaluation), 4.13 (dominance), and 6.33 (arousal), and the concept selfish has the ratings 2.45 (evaluation), 4.64 (dominance), and 5.50 (arousal) on nine point rating scales where the rating 5.00 signifies neutrality (Bradley & Lang, 1999).

authority is legitimized can be said to be equivalent to saying that an authority is trusted. But, however intuitional this comparison may seem, the synonymy of these concepts should not be assumed. An empirical examination of a relationship between these concepts should, however, estimate these concepts potential similarities.

Trustworthiness revisited

According to Priester and Petty (2003) a trustworthy endorser "is one whom people perceive to be honest and sincere, whereas an untrustworthy endorser is one about whom people feel scepticism and suspicion" (p. 408). Typically, trustworthiness was operationally defined as "the listener's degree of confidence in, and level of acceptance of, the speaker and the message" in Ohanian (1990, p.41).

This does not mean that trustworthiness has a straight-forward definition. In studies performed by McGinnies and Ward (1980), trustworthiness was manipulated by describing the highly trustworthy source "as being viewed by his contemporaries as honest, sincere, and trustworthy" and "having developed an interest in Gambia's maritime concerns during a vacation there at his own expense" (pp. 468 – 469). A non-trustworthy endorser was described as being sympathetic to a Nazi party and having a reputation for being devious, calculating, and inclined to personal gain above public welfare (p. 469). Pre-tests, where participants are asked to rate the level of expertise or trustworthiness they perceive the source to possess, are often used to assess the level of these variables and these are used for further measurements of effects of these variables. As pointed out by Berlo et al. (1968), with the information given in such studies it is hard to assess what exact underlying factors constitute source trustworthiness or if the effects apprehended are mediated by some variables that are not identified explicitly. Additionally, the operational definitions of trustworthiness are apprehended by direct questions on the variables themselves. The meaning of these variables

are strongly dependent on the researchers own interpretations and assumptions on what constitutes as trustworthiness.

An alternative explanation as to why perceived trustworthiness increases credibility is that the receiver of the source message implicitly recognizes the speaker's high social power and evaluates him or her positively. High social power is translated into a classification of the object person as belonging to a profile of legitimized authority which is characterized of having high evaluation-, high dominance-, and neutral arousal dimensional ratings of affective meaning.

If the object is positively evaluated in addition to being perceived as dominant, it will automatically be understood on an affective level as a legitimate authority. In other words, dominance and positive evaluation translate to a legitimized authority role identity.

Experiencing this role identity triggers a learned set of responses that result in increased opinion agreement, and thus increased credibility. But why does the authority profile include a neutral or low value for arousal, and how could this relate to the trustworthiness concept?

Counterfactuals

A possible explanation for the apparent importance of low or neutral arousal, or activity ratings of concepts which belong in the authority profile of Schneider (1999) stems from counterfactuals. Counterfactuals are "mental representations of alternatives to the past" (Roese, 1997). This type of thinking often occurs after the experience of unpleasant events; but in effect they happen after events that are deemed important for the person that experiences it.

There are two forms of counterfactual thinking. The first involves a comparison of an event that actually took place, and an event that one believes that had been a better option, but did not actually take place. This is called "upward comparison", and can be described as "upward-

directed, self-focused counterfactual thoughts” that occur after the occurrence of important events (Morris and Moore, 2000). These “posit alternative circumstances that are evaluatively better than actuality” (Roese, 1997). The second form of counterfactual thinking is downward comparison, or downward counterfactuals. These “posit alternative circumstances that are evaluatively worse than actuality” (Roese, 1997). Here, an even worse scenario, that never happened, is imagined, the actual event is compared with this worse scenario. This thought should be met with a positive emotion; relief.

According to Morris and Moore (2000) both upward and downward counterfactuals have adaptive functions and beneficial learning effects. They are activated by strong, usually negative emotional reaction to an event, and according to Roese (1997) their functional implications involve learning. Upward counterfactuals for example, elicit negative effect that “serve as signals to the organism that all is not well and that corrective thinking and action is required to fix this problem” (Roese, 1997). Downward counterfactuals, on the other hand “may energize or motivate future striving” (p. 138). In effect, the positive feelings of relief experienced after downward counterfactuals thoughts serve as rewards for a job well done, while upward comparisons serve as punishments and defer the organism from repeating the malignant behaviour.

The effectiveness of this learning process is enhanced by various factors that are measured in different ways. The most important factor is self-efficacy. A measure of self-efficacy is the perceived behavioural control (PBC), a concept coined by Ajzben (1988). It is defined as the subject’s perception of how easy or difficult it would be to perform the focal action. The general assumption is that an individual is more likely to decide to perform an action if that action seems possible than if circumstances or personal abilities are likely to make performance of the action problematic. It has been suggested that when the variable PBC is high, it is not major predictor of behavior. It does become important in actions where PBC is

low (Madden, Ellen, and Ajzen, 1992). Having high belief that one can behave differently the next time a similar situation occurs, aids in improving behavior (Roese 1997).

Here we may speculate what emotions might be brought about from encountering legitimate authority. Specifically, if the speaker is believed to have the power to bring negative results to the listener but does not use his or her power, the receiver should experience relief, and the positive feelings generated could project over to the speaker; hence making him more likable. In conjunction with being considered powerful and not expressive, the speaker assumes or affirms the role authority. A more positive evaluation of a powerful, but inactive, source is thus affected by downward counterfactuals.

Operational definition of trustworthiness

The operational definition of trustworthiness used in the current study was derived from scales that were used both in Pornpitakpan (1997) and Ohanian (1990). In these studies, trustworthiness was composed of four variables: predictability, dependability, faith, and sincerity. An extensive review by Pornpitakpan (2006) of the literature of source credibility research revealed that these scales are typical among those used to measure the trustworthiness construct. The current study focused on the relationship between perceived dominance and these variables. It was suggested that source trustworthiness, or level of trust, is related to the role identity labelled authority. Because this role identity is thought to strengthen when perceived dominance increases, increasing dominance should therefore simultaneously increase trustworthiness.

How is the current study unique when compared to previous studies

The present research promises improvements into the studies of persuasion by offering a concrete operationalization for a variable that has been described as one of the social sciences

most important concepts. The operational definition of perceived dominance makes quantifiable measurements on refutable hypotheses possible. If it is found that dominance has mediating or moderating effects on trustworthiness this could be seen as an improvement from traditional studies where basic variables, such as expertise and trustworthiness, lack theoretical underpinnings that could minimize their dependability on each researcher's interpretations.

The connection between previous research and the present work

The present work aims to test hypotheses which are derived from affect control theory and theories on counterfactuals on persuasion variables. Previously, studies on persuasion have not focused on the possible implications of these theories on the variables tested.

Additionally, the study aims to offer an explanation for why and how certain role identities are formed and what effects they have on the attitudes of others.

Why was the study performed

The purpose of this research was to investigate how perceived dominance influences opinion agreement, message evaluation, and perceived credibility. It was suggested that a general schema, of something that is better to believe or obey than not to, is created by experience and evoked when confronted with appropriate stimuli.

Hypotheses

Hypothesis 1: Communicators of higher levels of perceived dominance will induce more opinion agreement than communicators of lower levels of perceived dominance.

It is suggested that perceived dominance of message sources results in an increased state of submissiveness for receivers. This state is interpreted by the receivers' cognitive

system as a cue for high social power of message sources. The immediate effects of these implicit interpretations are manifested as an increased tendency to agree with opinions put forth. Therefore, it is predicted that agreement to persuasive messages will be higher if dominance is high rather than low.

Hypothesis 2: Communicators of higher levels of perceived dominance will be perceived as more trustworthy than communicators of lower levels of perceived dominance

To test for the effects of dominance on trustworthiness, a second hypothesis states that communicators of higher levels of dominance will be perceived as more sincere (ærlig), dependable (pålitelig), worthy of ones faith (troverdig), and reliable (tillitsvekkende), than communicators of low levels of dominance.

Rationale for the study

The current study serves three purposes: First, to investigate how perceived dominance influences persuasion, and secondly, to identify dominance as an underlying construct of source credibility. Secondly, the study aims to examine if, and how, affect control theory and research tools that have been developed from it, can explain fundamental variables in communication research. The study may be seen as an attempt to offer a quantifiable measure of the potentially important variable, dominance. The expected findings would press for reevaluation of some important variable since source dominance could be a moderating, or even mediating, factor for these. It is hoped that the study helps to improve communication research models by offering alternative explanations for earlier findings and perhaps replace these with simpler, quantifiable variables. At the very least the expected findings should offer an addition to the literature of communication studies.

Method

Participants

The study involved 48 participants, aged 19 to 67 (Mean = 28,5, SD = 10,3) of roughly equal gender distribution (23 male, 25 female). These were recruited by three means. First, thirteen guests at a local café in Tromsø participated in the study in exchange for discounts on foods and beverages. Second, 20 students in introductory methodology for psychology studies participated in the study in exchange for partial course credits. The final 15 participants were guests of a library in the University of Tromsø. These received a lottery ticket for their participation. It was explained to all participants that participation was voluntary and that no personal information would be asked for or kept.

Design

A 2 (source dominance: high or low) X 2 (human or nonhuman (garden) pictures) factorial between-subjects design was employed. As an additional within-subjects factor, the study used a persuasive message that featured opposing arguments from two communicators (source: “the community” versus “the opposition leader”). In order to evaluate the possible effects of dominance on source and message factors in persuasion, a comparison was made between ratings from recipients who received identical questionnaires save for a stimulus picture embedded within the text. Recipients were randomly selected to receive one of four versions of a document which was designed to look like an official poll created by local authorities in Reykjavik, Iceland.

Independent variables

Isolating the dominance variable: In the first of two pictorial conditions, the picture of each version were of a musician. The ratings of these were virtually identical for two of the three core variables of affective meaning, pleasure (*P*) and arousal (*A*), but differed in the variable

of interest, dominance (*D*). With this, the variable dominance was isolated as the only variable that differs between the two conditions.

However, finding a difference in participants' ratings by these manipulations is insufficient to prove that these are caused by different levels of dominance since there are various alternative explanations should any differences be found. The three dimensions of affective meaning may not control for variables such as attractiveness, age, and clothing that may offer alternative explanations that undermine the notion that it is the difference in dominance that is the primary cause of effects.

In order to exclude such alternative explanations, a second condition was introduced to the study design. In these, the picture stimuli manipulation factor was repeated. Pictures embedded within the text in these conditions also had virtually identical ratings for the evaluation and arousal dimensions, but differed in the dominance dimension. However, these pictures contained no human models, but only gardens. A difference in participants' ratings for these conditions, in addition to difference between the person pictures, effectively exclude any alternative explanations for differences in credibility ratings linked to already established effects linked to person variables. If the difference in agreement and credibility ratings is repeated in the garden condition, this should offer strong evidence for the studies' proposal that increasing the perceived dominance of the source simultaneously increases a sense of being dominated in the recipients; a sense which translates to legitimate authority role identity of all communicators.

Stimulus pictures: In the person-picture condition, the high dominance picture was of a musician that had the values 5,66 (*SD* = 1,44) for *P*, 3,80 (*SD* = 1,93) for *A*, and 5,67 (*SD* = 1,78) for *D*, respectively. The low dominance condition made use of a picture stimulus, also of a musician, that had the values 5,69 (*SD* = 1,36; difference from strong condition 0,03

datapoints) for *P*, 3,74 (*SD* = 1,93) for *A* (difference of -0,06 from the picture in the strong condition), and 6,12 (*SD* = 1,66; difference 0,45 from the picture in the strong condition) for *D*.⁸ For the second pair of pictures, the high dominance condition was of a garden that had the values 7,01 (*SD* = 1,50) for *P*, 3,91 (*SD* = 2,27) for *A*, and 5,53 (*SD* = 2,01) for *D*. The low dominance condition was a picture rated as having the values 7,06 (*SD* = 1,71; difference 0,05 from the strong condition) for *P*, 3,83 (*SD* = 2,49; difference of -0,08 from the picture in the strong condition) for *A*, and 6,73 *SD* = 2,04; difference 1,2 from the strong condition) for *D*.

An unpaired t-test, conducted by the current experimenter from data available in Lay et. al (2008), for difference of means for the high- and low differences of *D* values for the person condition yielded $t(198) = 1.85, p = .033$, one-tailed. A test for difference of means for the high- and low differences of *D* values for the garden condition yielded $t(198) = 4.19, p < .0001$, one-tailed. No significant differences of *P* or *A* values were present.

Control procedures

Initial attitude toward topic: The questionnaire was purposively designed in such a way that participants would be not be likely to have extremely positive or negative views on the messages of either source and also that the issue would not be of high involvement for the participants. This was done to minimize effects of discrepancy on evaluations of the messages. Discrepancy in persuasion is the difference between the initial attitude of the audience and the content of the persuasive message. Too much discrepancy has been found to impair persuasion. The audience will, generally, reject messages that are too far from their initial attitudes. But if there is no discrepancy, no attitude change can take place (Aronson, Turner, & Carlsmith, 1963). A moderate discrepancy is therefore thought to be optimal for persuasive attempts.

⁸ As explained earlier in this paper, higher values of the dominance variable indicate a lower perceived dominance of the focal object in Lang et al. (2008)

Additionally the questionnaire was designed in such a way that effects of description that might be linked to variables such as expertise and trustworthiness of the source would be minimized. For this reason, the two sources were not described thoroughly, but only as “the leader of the opposition” and “the commune,” respectively.

Responses to the questionnaire as well as comments made during the debriefing were used as indicators that a subject knew the purpose of the research. No participants described that they suspected the true purposes of the questionnaire.

Source specificity: Another question that might be raised is which of the two sources included in the questionnaire does this effect influence? At first sight one might expect that these effects should only apply to the opposition source since this is the person who is identified in the person condition. However, the submissive state of the recipients should not be limited to one source. Rather, this state should translate across sources. This should be especially obvious in the garden-picture conditions where neither message source are identified, but only the garden which is the matter of debate. What are causing the differences in agreement ratings are not personal variables, but a state of submissiveness that increases recipient’s tendency to agree with any statements. This state of submissiveness is the implicit heuristics cue that the speaker is of higher than lower legitimate authority and should therefore be believed. Therefore, the effects of dominance should be non-source specific.

Importance of topic: In designing the magazine article for the questionnaire care was taken to choose a topic that would not be likely to be of high importance for the Norwegian subjects. Earlier studies have indicated that when task importance is low, heuristic processing, or peripheral elaboration, of the credibility cue exerts more influence on participants’ judgments of the message than systematic processing, or high elaboration of the quality of the message

(Chaiken and Maheswaran, 1994). Effects of source variables are therefore expected to be more important for topics of low importance and since the message itself was identical for all experimental conditions, systematic processing alone might not yield to any significant difference in outcome between conditions. To this means, the topic was made to take place in a different country than Norway (namely Iceland). With this it was assumed that participants would not consider the topic as equally relevant as if it had taken place in more proximate settings. Additionally, it was assumed that participants would not have sufficient knowledge of the topic and the settings to have the capacity to use systematic processing. Both relevance of the topic and capacity to elaborate the message are important conditions for high elaboration processing according to the heuristic systematic- and the elaboration likelihood models of persuasive communication (e.g. Priester and Petty, 2003).

Ambiguity of topic: Similarly, care was taken to choose a message that was fairly ambiguous. Therefore, two sources were presented that offered opposing viewpoints on the topic. The reason for choosing an ambiguous message is that under such conditions heuristic processing has been found to bias systematic processing, even under high elaboration (Chaiken and Maheswaran, 1994). For this reason, the ambiguity of the message presented is considered to result in a distributed effect of the study variable across identified sources. By this it is meant that increasing dominance of the source influences judgments on the messages from both sources identified in the text. The expected finding is that more dominant pictures lead to more agreement to the messages in general, regardless of who is identified as the source of these.

Procedure

The message: Each participant randomly received one of four versions of the mock-up poll. On the first page of this was the one-page text explaining the topic and context that

participants were asked to indicate their opinions of. In the poll, opposing viewpoints on planned changes of a public garden were listed. Embedded within the text was the study variable, one of four stimuli pictures that differed in dominance ratings. This was followed by 3 pages of rating scales.

In the introductory text two opposing viewpoints regarding future planning of a public garden in Reykjavik, Iceland, were introduced. The two opposing viewpoints, each offering numerous arguments (5 pro, 6 con), were explained as coming from two sources. The first was the communal authorities, which were in favour of the changes, and the second was a person labelled as the spokesman for an organization that was opposed to the communal plans. Two message sources were identified in the text; the communal authorities who gave 5 reasons for changing how a local park would be run, and an opponent of such plans who gave 6 reasons for opposing the plans. Participants were informed that since the issue was thought to be legally relevant to all Nordic countries it was important to get a picture of the general attitudes towards the matter presented (see appendix 1 for further detail).

Dependent variables

Opinion agreement: After reading a persuasive message, participants rated the extent to which they agreed or disagreed with opinions. The rating scales for this section of the questionnaire consisted of 11 statements (questions 1.a to 1.k, see appendix) made in the article that the participants could rate on 9-point semantic differential scales to indicate their level of agreement-disagreement.

Agreement to source 1; the opposition: Reliability measures, using Cronbach's Alpha Reliability Coefficients, revealed that the coefficient for the rating across all six answers to the opposition's viewpoints was .74. Item-total statistics indicated that the data would not improve much by leaving any item out; therefore a summary score was computed by

averaging across all six answers. The summary score had a theoretical range from 1 (“completely disagree”) to 9 (“completely agree”).

Agreement to source 2; the commune: Cronbach's Alpha across all five answers to the commune's viewpoints was .74. Leaving out question 10 (commune question 1.j, see appendix 1) improves Cronbach's Alpha to .80. Therefore, a summary score was computed by averaging across only four items (1.g, 1.h, 1.i, and 1.k). It had a theoretical range from 1 (“completely disagree”) to 9 (“completely agree”).

Opinion evaluation: A measure of evaluation of messages from each source was apprehended with eight bi-polar rating scales. The rating scales for each viewpoint were identical. In the first scale participants rated the extent to which they felt that the overall message of the appropriate source was good or bad (bra versus dårlig, question 2.1 and 3.1), sympathetic or unsympathetic (sympatisk versus usympatisk, questions 2.2 and 3.2), exciting or boring (spennende versus kjedelig, questions 2.3 and 3.3), and irritating or not irritating (irriterende versus ikke irriterende, question 2.4 and 3.4). First of these were four 9 point scales where the participants were asked to indicate their overall attitudes toward the opposition leaders' viewpoint (questions 2.1 to 2.4) and these were followed by identical questions regarding the commune's viewpoints (questions 3.1 to 3.4).

Where necessary, participants' responses on the eight variables were reverse-coded such that greater scores indicated more positive evaluation. Reliability measures, using Cronbach's Alpha, revealed that the average coefficient for all four ratings for the opposition's viewpoints was .811. Item-total statistics indicated that the data would not improve very much by leaving any item out. Therefore a summary score was computed by averaging across all four answers. The summary score had a theoretical range from 1 (negative evaluation) to 9 (positive evaluation). Similarly, Cronbach's Alpha for all four ratings for the commune's viewpoints

was .816. Item-total statistics indicated that the data would only be impaired by leaving any item out. A summary score was therefore computed that had the same theoretical range as the summary score for the opposition's viewpoints.

Perceived trustworthiness: A test for hypothesis 2, that higher dominance leads to higher ratings of perceived trustworthiness, was apprehended by means of on four bi-polar scales. Only the source mentioned as the opposition was included in the test.⁹ Perceived source credibility was operationalized as the extent to which recipients rated the source on four scales. The scales consisted of the adjective opposites uærlig versus ærlig for question 4.1 (roughly insincere versus sincere); pålitelig versus upålitelig for question 4.2 (roughly translatable into dependable versus unreliable), tillitsvekkende versus ikke tillitsvekkende for question 4.3 (roughly translatable to dependable versus undependable) and ikke troverdig versus troverdig for question 4.4 (roughly translatable to the extent to which one is worthy of faith, nearly synonymous to credibility).¹⁰ Where necessary, the variables were reverse-coded such that greater values indicated greater trustworthiness. Cronbach's Alpha reliability test for all four items was .88. Item-total statistics indicated that the data would not improve much by leaving any item out; therefore an aggregated score, labelled source trustworthiness, was composed out of these four variables. The aggregated score had the theoretical rating range of 1 ("completely non-trustworthy") to 9 ("completely trustworthy").

Measures of source specificity: The next part of the questionnaire consisted of three scales on which the participants were to rate the extent to which they thought the plans of the commune were good or bad for question 5.1 (bra versus dårlig), intelligent or unintelligent for question

⁹ The rationale for this is that only the opposition is identified as a person that can possess personal credibility characteristics. The source identified as "the commune" is not a person, and can therefore not be evaluated as such.

¹⁰ These scales were derived from Pornitikpans (1997) definition of trustworthiness.

5.2 (tåpelig versus smart), and useful or useless for question 5.3 (nyttig versus ikke nyttig). This variable could serve as a secondary measure of persuasion, after the more important agreement-with-statement ratings. Where necessary, variables were reverse-coded such that greater scores indicated more positive evaluation. Cronbach's Alpha across all three answers was .80. An aggregated score was composed out of the three variables which had the theoretical range 1 (positive evaluation) to 9 (negative evaluation). The three items were averaged into a summary score with a theoretical range from 1 to 9, where greater values indicate more positive attitudes towards the community's plans.

Importance: The reader was next asked to rate how important he or she felt that the topic matter was (question 6). The variable had a theoretical range of 1 ("not important at all") to 9 ("very important"). This variable was included to enable a check for randomisation problems due to possible interactions of importance on the effects of dominance.

Suspicion of intent: In order to evaluate if participants believed in the authenticity of the cover story an open ended question (question 7, see appendix) probed for their comments on the matter. The actual, but unstated rationale for this item was to allow participants to articulate their eventual suspicions on the authenticity of the article.

Thoroughness: Next, an item that probed participants for how thoroughly they read the text (question 8, see appendix) followed. The variable had a theoretical range of 1 ("not thoroughly at all") to 9 ("very thoroughly"). This variable was included to enable a check for randomisation problems due to possible interactions of how thoroughly the participants read the document on the effects of dominance on the dependent variables.

Sex and age: The questionnaire ended with two questions where participants were asked to indicate their sex (question 9.1, see appendix) and age (question 9.2, see appendix). These

measures were included in order to be able to describe the demographical characteristics of the study sample as well as to test for randomization problems that could be linked to these variables.

After the participants had finished the questionnaire and returned it to the experimenter the participants were debriefed and the true purpose of the questionnaire was revealed. It was explained to participants that no data regarding the identities of the respondents would be published and that they had the right to withhold the questionnaire if they chose to. No participants chose to do so. The debriefing section was also used to identify if any participants suspected the true purpose of the study. No participant gave hints to that they did so.

Results

Tests of randomization problems

Importance: An analysis of variance, using dominance and picture versions as factors, but importance ratings as the dependent variable was conducted. Tests of between-subjects effects yielded no significant difference between conditions with respect to how important participants found the issue, although importance ratings were a bit higher in the person-picture condition ($M = 6.70, SD = 1.33$) than in the garden-picture condition ($M = 5.88, SD = 2.31$). These differences were far from significant, $F(1, 43) = 2.14, p > .15$.

Thoroughness: Similar tests probed for a difference in the effects of dominance on message agreement as a function of how thoroughly participants read the text. Any such finding had suggested a randomisation problem in the data that would have weakened the hypothetical

results. Neither main effects nor an interaction of image version and dominance were observed, with all three $F < 1$, and ns.

Sex, and age: Tests of between-subjects effects revealed no interaction from either sex, or age on the effects of dominance on the three main dependent variables were found, with all $F < 1$, and ns.

Summary of randomisation effects. There is no evidence for differences between the experimental conditions in terms of how important the participants found the issue, what the participants age or sex, or how thoroughly they read the article. Since such effects were not found, any effects of the experimental factors found can not be due to a randomisation problem in the experiment.

Main findings

Effects of dominance on opinion agreement:

Agreement with statements made by the source “opposition”: The summary scores of agreement with statements made by the opposition leader were submitted to an analysis of variance with the between-subjects factors dominance (low vs. high) and image content (person vs. garden). Although agreement with opposition statements was somewhat greater when dominance was high ($Mean = 7.49$, $SD = 0.94$) rather than low ($Mean = 7.19$, $SD = 1.20$), analysis of variance yielded neither significant main effects nor a significant interaction, with $F(1, 45) = 0.85$, $p = .362$ for the effects of dominance on tendency to agree. This finding does not lend support to Hypothesis 1. However, measures of skewness revealed large negative skew for question 1.a ($skewness = -2.93$, $SE = .343$), question 1.b ($skewness = -$

2.1, $SE = .343$), and question 1.c ($skewness = -1.54$, $SE = .343$) which indicates considerable ceiling effects.

Agreement with statements made by the source "the commune": The analysis was then repeated, this time using the summary scores of agreement with statements by the community as the dependent variable. Analysis of variance revealed that agreement was significantly higher in high dominance conditions ($Mean = 5.15$, $SD = 1.52$) than in low dominance conditions ($Mean = 4.22$, $SD = 1.57$), $F(1,44) = 4.14$, $p < .05$. These results support Hypothesis 1. The absence of an "image" main effect ($F < 1$, ns) shows that agreement does not differ between person- and garden-picture conditions. Most importantly, the absence of an interaction between "level of dominance" and "type of image" ($F < 1$, ns) shows that the dominance main effect does not differ between the image conditions. This suggests that the dominance effect is present in both conditions.

Repeated-measures analysis of agreement with statements: Next, a repeated-measures analysis of variance was conducted. As before, dominance (low vs. high) and image version (person vs. garden) were used as the between-subjects factors. Both summary scores (agreement with the opposition, and agreement with the commune) were entered simultaneously as dependent variables. This yielded an additional factor (a within-subjects factor); a bipolar variable where one of two types of agreement ratings; agreement with the opposition and agreement with the commune, result from ratings from each participant. The analysis revealed the main effect that agreement was much higher with opposition statements ($Mean = 7.36$, $SD = 1.08$) than with the commune statements ($Mean = 4.68$, $SD = 1.60$). This difference is highly significant, $F(1, 44) = 61.65$, $p < .001$. Although this finding is in itself of

no interest for the present study's hypotheses, it highlights the suspicion that agreement ratings with opposition statements (questions 1.a to 1.f) suffered from ceiling effects.

The analysis further yielded a significant source dominance effect, $F(1, 44) = 10.34, p = .002$ as predicted by Hypothesis 1. No significant interactions of agreement ratings were found; all $F < 1, ns$.

The two previous analyses had not revealed significant differences between dominance conditions in the agreement with the opposition, but only for agreement to the commune, suggesting that dominance effects on the participants' level of agreement with statements differed as a function of who had made these statements – which would be counter to Hypothesis 1. In contrast, because of the absence of significant interaction effects, the present analysis did not suggest the same.

Follow-up analyses: Simple effects within image conditions: To follow up on the previous result, separate repeated-measures analyses of variance were then conducted within each image condition. The means and standard deviations are shown in Table 1.

Table 1. Agreement with statements

Image		Dominance	Mean	Std. Deviation
Person	Opposition statements	low	7.18	1.33
		high	7.43	1.06
	Commune statements	low	4.17	1.83
		high	5.15	1.67
Garden	Opposition statements	low	7.19	1.13
		high	7.63	.85
	Commune statements	low	4.27	1.34
		high	5.15	1.43

Note. The table shows ratings of agreement with statements from the opposition, and from the commune. Higher scores indicate greater agreement. For each cell, $n = 12$.

These analyses confirmed that people agree more with opposition statements than with community statements. This effect exists in each of the two image conditions, person image: $F(1, 22) = 23.96$, garden image: $F(1, 22) = 42.52$; for both F s, $p < .001$. These main effects are not important for the test of hypotheses. But, importantly, the interaction of the repeated-measures factor “agreement” with the experimental factor “dominance” was not significant in either image condition (both F s < 1 , ns). The absence of that interaction confirms that all effects of dominance in the data affect agreement with both kinds of statements to about the same degree. Previous analysis which used the whole sample that yielded these results is therefore confirmed, even within each of the image-condition subsamples separately.

Most importantly, however, tests of between-subjects effects for the repeated-measures factor “agreement” with the experimental factor “dominance” confirmed the hypothesis of the study. Within each of the image conditions, “dominance” has a significant main effect in the predicted direction – both when the image showed a person, $F(1, 22) = 4.51$, $p < .05$, and when the image showed a garden, $F(1, 22) = 5.94$, $p < .03$. Together with the absence of interactions (as described a few lines above), the results of this analysis lend strong support to Hypothesis 1.

Effects of dominance on perceived source trustworthiness: An analysis of variance with the trustworthiness summary scores as the dependent variable, and dominance (low versus high) and image (person versus garden) as the between-subjects factors was conducted in order to assess Hypothesis 2; which predicted a positive relationship between dominance and perceived trustworthiness. Although the pattern of means was in the expected direction, no significant effects were found, all $F < 1.8$, all $p > .19$. This result does not confirm Hypothesis 2.

As a next step, the analysis was repeated separately for each of the four variables that made up the trustworthiness summary score. These analyses showed no significant effects for the “uærlig-ærlig” and “pålitelig-upålitelig” ratings, but showed significant dominance main effects for the “tillitsvekkende-ikke tillitsvekkende” and “troverdige-ikke troverdige” ratings. Therefore, a new summary index was computed from the latter two ratings alone.

The analysis was then repeated with this new index. The means and standard deviations are shown in Table 2.

Table 2. Trustworthiness ratings

Image	Dominance	Mean	Std. Deviation
Person	low	6.50	1.53
	high	6.91	1.45
Garden	low	5.58	1.78
	high	7.13	1.63

Note. The table shows trustworthiness ratings (new index). Higher scores indicate greater perceived trustworthiness. For each cell, $n = 10$ to 12 .

Dominance was found to be positively related with trustworthiness: The source in high dominance conditions was rated as more trustworthy ($Mean = 7.02$, $SD = 1.51$) than the source in the low dominance conditions ($Mean = 6.00$, $SD = 1.70$), $F(1, 41) = 4.12$, $p = .045$. The image condition (person versus garden) did not have a main effect, $F < 1$, ns . Importantly, the dominance effect that was described before did not differ between image conditions, $F < 1.4$, $p > .245$ for the interaction effect. In sum, after removing variables that increased the statistical noise, the results for the new trustworthiness index lend significant support to hypothesis 2.

Summary of findings

It was hypothesized in the present study that 1) higher dominance conditions would produce more opinion agreement than low dominance conditions, and 2) the more dominant source would be perceived as more trustworthy than the low dominant source.

Both hypotheses were generally supported in the study. A relationship was found between perceived dominance and increased opinion. Message evaluation was more positive in the high dominance conditions than the low dominance conditions. Finally, perceived trustworthiness was found to increase as a function of increased dominance of the picture manipulation.

The effects observed were not mediated by the type of picture that was used (pictures of a person, or pictures of a garden) which lends strong support for the theoretical assumptions, because this finding excludes alternative explanations around message source characteristics such as attractiveness, age, clothing etc. Additionally, the effects were not mediated by age, elaboration or sex and the effects were nearly identical for both sources introduced in the text; the commune and the opposition.

Discussion

Hypothesis 1, that communicators of higher levels of perceived dominance induce more opinion agreement than communicators of lower levels of perceived dominance was generally supported by the study, although non significance was found in one condition. Participants who read poll messages in the high dominance conditions agreed more strongly with the statements made in the text than recipients who read questionnaire messages in the low dominance conditions. These effects were not moderated by picture model (human or garden), which undermines alternative explanation for the results that are based on source characteristics such as age, sex, and attractiveness. Main effects of dominance on statement

agreements were observed. Hypothesis 2, that communicators of higher levels of perceived dominance will be perceived as more credible than communicators of lower levels of perceived dominance, was supported by the study. Significant differences were found for ratings on believability and credibility between low dominance and high dominance condition participants.

Implications of the results

The primary goal of this study was to determine if perceived dominance increases opinion agreement and perceived trustworthiness of communicators. As predicted, data analysis revealed a significant linear effect for dominance of picture stimuli embedded within a text. A positive relationship between dominance and opinion agreement was found and direct measures indicated that high dominant sources were perceived as more trustworthy. The absence of effects of identification of source (human versus garden) support the notion that it is dominance, not confounding variables such as attractiveness, that is the cause of the difference in agreement tendencies between conditions.

It was suggested that a sense of credibility or authority can be explained in terms of conditioning theory, as well as from counterfactuals. Life-long conditioning in various social institutions, where obedience in certain situations is rewarded, learned and generalized result in a high-order group of generalized authority. In order for a group or group authority to become legitimized and internalized it must fit this category of generalized authority, the perception of which would put recipients into a submissive state and evoke patterns of behaviour from a repertoire of, what might be called, 'obedience behaviour'. This translates to an increased tendency to accept persuasive messages from dominant, or powerful, sources. The study supports the idea that affective meaning of authority is linked to a cognitive state of

submissiveness and that there is a reciprocal influence of positive evaluation and perceived dominance of a message source.

Theoretical consequences

The results that were apprehended from the study can have substantial implications for both affect control theory and persuasion models such as the elaboration likelihood model and the heuristics-systematic model. For affect control theory it offers an explanation on how the role identity profile labelled as “authority” by Schneider (1999) receives its meaning and what effects this profile of affective meaning has on the attitudes of others. The results supported the explanation that instrumental utility of attitudes, learned through socialization and experience with dominant role identities, creates the affective profile of legitimised authority that is instrumentally better to agree with than not to agree with. For persuasion studies, such as the elaboration likelihood model, the results suggest that important source credibility variables be tested for possible moderating, or even mediating, effects of perceived dominance.

Trustworthiness: Some studies have identified trustworthiness as the single most important variable of the source credibility construct (e.g. McGinnies & Ward, 1980). Several models of communication and persuasion define source credibility, the variable Hovland (1953) considered as the most important variable in communication research, in terms of trustworthiness, expertise and attractiveness (e.g. Goldsmith, 1997; Ohanian, 1990). However, the operational definitions of trustworthiness have been somewhat fuzzy.

The study reported in this paper suggests that trustworthiness depends not only on perceived good-will of the endorser, but is intrinsically related to his or her perceived dominance. Two reasons are given for this relationship. First, it is contended that people implicitly interpret a positively evaluated, powerful speaker as a legitimate authority and that this role model

translates to a sense of credibility. This mental heuristics is learned through experience with societies' dominance hierarchies. It is a conditioned set of responses that has significant instrumental value for the person since it simplifies decision making in message evaluation to that which has the highest probability to lead to positive responses. Not obeying this heuristics leads more often to negative results in the hierarchically organized structure that dominates the commonalities of societies such as the Norwegian. It is assumed that legitimacy and dominance are intrinsically connected and that perceived legitimacy itself rests on perceived dominance.

A question left out in Schneiders' (1999, 2004) studies is, why do role identities that are identified as authorities high in evaluation and potency, but low in activity? As to the reason why activity is low, Schneider has suggested that the act of using ones power effectively undermines the focal persons legitimized authority. But in addition to Schneiders explanations, it has been suggested in the current study that there exists a reciprocal relationship between evaluation and dominance. According to theories on counterfactuals (e.g. Morris, 2000, Roese, 1997), if the speaker is considered powerful; or is believed to have the power to bring negative results to the listener, the person that experiences unrealized power might experience relief and the positive feelings generated could project over to the speaker and the messages he or she puts forth; hence making both more likable. In conjunction with being considered powerful and not expressive, the speaker assumes the role identity labelled authority by Schneider (1999). Therefore, the proposal made in this paper was that a person who is thought of as a possible threat but does not use his or her power is not only experienced as more of an authority but in general evaluated more positively than a person who is not thought of as a possible threat and that this results in increased perceived trustworthiness of the communicator.

The sleeper effect: In addition to affecting the theoretical construct trustworthiness itself, the current study may offer alternative explanations to some well established phenomena. For example, studies on source credibility have yielded a phenomenon called the sleeper effect. This effect is thought to be occurring when recipients' acceptance of a persuasive argument from a low-credibility source increases over time while acceptance of a persuasive argument from a high-credibility source decreases. But if dominance plays a large role in the construct source credibility, the sleeper effect could also be explained differently. The alternative explanation is simply that initially the recipients were put in a mildly submissive state, leading to an increased tendency to agree with speaker. As this state wanes and is forgotten, so is the effect of source credibility. The findings of the current study therefore call for examination into the effect of source dominance on the sleeper effect.

Mood: Several studies have concluded that when people are in a positive or cheerful mood, they are generally more compliant than when they are in a bad mood (e.g. Krugman, 1983, Milberg, & Clark, 1988). These effects have been found to be different for low- and high elaboration recipients, with a more direct effect on compliance for low elaboration recipients (Petty, Gleicher, & Baker, 1991). An effect of positive mood on compliance for high-elaboration condition has been interpreted as such that it biases retrieval of relevant supporting information, or that positive mood has an informative function that is relevant to the recipients' possible reactions (Petty, Cacioppo, Sedikides, & Strathman, 1988). Using affect control theory, these results could be interpreted differently. The dimension of affective meaning that has been labelled as valence (Lang, et al. 2005) was operationally defined as the extent to which participants feel "happy, pleased, satisfied, contentful, hopeful" (p. 5). This signifies positive affect of the recipient. That higher valence increases legitimized authority has been predicted by Schneiders (1999, 2004) studies. Isolating this variable in a similar

fashion as has been done with dominance in the current study could confirm that valence is also correlated with increased opinion agreement. This, in addition to the results reported in this paper, leads to the question, to what extent could the authority profile of Schneider (1999) explain current variables in persuasion studies? Even though we are far from establishing that source credibility is synonymous to Schneiders authority profile, it cannot yet be excluded.

Limitations and future research

If future research should bring more evidence that perceived dominance increases message acceptance, it becomes important to establish why this is so. Here, it has been suggested that individual learning of appropriate behaviour in societal situations results in a heuristics that brings about these results. With socialization the individual adapts the strategy that dominance is a cue for social power and that it is beneficiary to increase agreement with such role identities. But alternative explanations, or mediating variables, could account for this effect and should be tested. From an evolutionary or biological perspective, it could be postulated that such effects are the result of innate pecking-order responses. We might thus be predisposed to follow a hierarchical structure and obey apparently dominant persons because they have evolutionary adaptive values. One way to test if societal variables do or do not play a role is to compare groups that have been pre-tested as to have experienced different levels of societal indoctrination. For example, we might compare these effects with people who have received few versus many years of formal schooling; years of working in a hierarchical workplace; being raised in a city or farm and so on. From the hypotheses made in the current study, one would expect that a person who has spent less time in formal public schooling, is used to working independently and is brought up in an environment where fewer authority figures must be obeyed than more would be less susceptible to dominance effects than one

who has more years in schooling, more experience in a hierarchical workplace, and is raised in a highly hierarchical society etc.

Neurological underpinnings: Neurological studies have revealed that pictures that have been rated as emotionally arousing on the three dimensions of affective meaning produce late, slow positive voltage change in scalp-recorded event-related potentials. This effect is not found when participants view emotionally neutral pictures and it is believed that this indicates a selective processing of emotional stimuli, reflecting the activation of motivational systems in the brain (Cuthbert, Schupp, Bradley, Birbaumer, & Lang, 2000). In order to assess the neurological effects of perceived dominance, this variable should be isolated with similar intent.

In order to evaluate what sort of brain activity is likely to be linked to the effects reported in the current study we can assume that during judgement of affective meanings related to concepts that belong to the super-class “authority”, the brain modules associated with fear or related emotional responses, such as the amygdale and the orbitofrontal cortex, should show heightened activation during such judgement. Such a finding would support the argumentation offered in the current study.

Positive versus negative initial disposition: Subjects with a positive disposition toward the communication issue have been found to be more persuaded by moderately credible sources than by high credibility sources (Sternthal, Dholakia, and Leavitt, 1978). Highly credible sources have been found to be more persuasive than moderately credible sources if the message recipients are negatively predisposed to the message. These effects only occur when the communicator is identified prior to the message (ibid). The reason why highly credible sources are found to be more persuasive when recipients have a negative disposition toward the message is presumed to be that a highly credible source serves to inhibit counter-

argumentation, whereas a moderately credible source facilitates it. However, moderately credible sources have been found to be more persuasive when the recipients are favourably predisposed to the communication issue. The reason for this is presumed to be because message recipients feel a need to bolster support for a position they favour when the communicator is of questionable credibility and that they therefore elaborate the arguments, but feel less inclined to engage in this cognitive work when a highly credible source is presenting the favoured position.

However, as explained earlier, for a source to become a legitimate authority, he or she must be positively evaluated but moderately active in addition to be high on dominance. If the source is perceived as either negatively evaluated or highly active, it has been suggested that he or she will lose their legitimacy and be classified into a different category that has different results for credibility. Therefore, studies should be made that isolate these variables, evaluation and arousal. Finding that these influence these effects would undermine the above mentioned predictions on initial disposition since they indicate that other variables, not taken into consideration, moderate the effects observed.

Conclusions

The main conclusion of the present study is that perceived dominance influences persuasion. The mechanism by which the cognitive system recognizes that a person possesses social power, it is contested, is perceived dominance of the object person. This perception of dominance serves as a cue for power and this cue is translated into a classification of the object person as a legitimate authority. This triggers a set of learned cognitive responses that result in an increased tendency to agree with persuasive messages, thus increasing the credibility of the apparently powerful person.

Final summary statements

As to why perceived dominance increases opinion agreement and perceived trustworthiness of an endorser, this paper suggests that dominance serves as an implicit mental cue for social power. Because of the social dominance structure in modern western societies, this cue is of instrumental value for the individual. Believing socially powerful individuals is more important than believing less powerful individuals. This cue is recognized by an automatic affective response to being exposed to a stimulus that is perceived as highly dominant.

Importance and relevance

The manipulation procedure of the main independent variable used in the current study has the advantage that it offers a quantifiable measurement, has a clear definition, and is refutable. These advantages are missing for some key variables used in the elaboration likelihood model and the heuristics systematic model, such as expertise and trustworthiness, as already mentioned. The current study gives perceived dominance a possible place as a basic underlying variable in persuasion. Finding such variables has been described as the most important work of theorists in persuasion. This was the view of Carl Hovland (1953) who proposed that a primary goal of communication research is to isolate factors that account for the effectiveness, or lack thereof, of persuasive communication (cited in Patzer, 1983, pp. 130-1). Taking this into consideration, the results reported in this study should overall strengthen the discipline of communication studies.

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**Spørreskjema
Bruk og styring av sentrale folkeparker**



Spørreskjema Bruk og styring av sentrale folkeparker

Friluftsområdet Hljómskálagarðurinn er en av Reykjavíks eldste og best bevarte parker. Parken ligger ved det berømte tjernet som deler Reykjavík i øst og vest, og har navnet sitt etter en paviljong som ligger i den ene enden av parken. I Hljómskálagarðurinn er det blant annet muligheter for å grille og lekeapparater for barn, samt turstier langs tjernet. Gjennom tidene har det vært mulig å bruke deler av parken til kunstutstillinger, demonstrasjoner, konserter o.s.v. Likevel synes mange at parken brukes for lite. Mens andre deler av Reykjavíks sentrum er livlige er parken ofte stille.

Nå diskuteres det i kommunen å legge parken om for å få økt aktivitet i den. Prosjektet har spesielt fokus på skolene, fra barnehager og oppover til universitetet og kunstskolene og planen er at aktiviteten i parken skal bli organisert av et utvalg fra kommunen i samarbeid med representanter fra skolene. Meningen er å legge til rette for økt bruk av ute-områder blant byens studenter og barn og å gi en ny arena for kunst og kulturuttrykk. Det vil bli mulig for skoler og grupper å leie hele parken i minst et døgn av gangen og parken vil bli stengt for det allmenne publikum under avvikling av arrangement. Kommunen håper på denne måten at blir aktiviteten i parken øker og at flere mennesker får bruke den.

[IAPS picture not included]

Magnus Sigurðsson (på bildet) er ikke enig med kommunens planer.

Magnus Sigurðsson, musiker og talsmann for en nyopprettet arbeidsgruppe mot kommunens planer, er ikke overbevist om at dette er en god idé. "Hljómskálagarðurinn er en av Reykjavíks eldste folkeparker og har i seg selv kulturell verdi." Magnus synes ikke at det er problematisk at parken brukes ikke i full kapasitet. "I dag kan alle gå gjennom parken uten å måtte betale eller søke om tillatelse. Parkens stillhet er et viktig tilbud i byens ellers bråkete miljø".

Magnus ser ikke ulemper med å ha liten styring på parken. "Det er mer positivt å ha et åpent område i byens sentrum som er enkelt og gratis å bruke for enkelt anledninger en å fastbooke det, selv om bookingen er for en god sak. Med å

stenga av området taper alle i Reykjavík frihet til å nyte parken og bruke den når den er booket. Kommunens plan er et tegn på kommunens over-styring av byens kunstliv. Dette blir ikke å føre til økt kreativitet eller ny kunst, tvert imot. Mangel på styring er ikke en ulempe, men selve grunnen til at parken er bra. Fokus på eget initiativ og frihet, som er grunnen til at vi bruker parken vanligvis, er nettopp det som gjør kunstlivet i Reykjavík så bra. Midlene som går med til dette prosjektet burde heller bli brukt i informasjonskampanjer for å få flere til å nyte parken og til å støtte skolene og barnehagene i å lage sine egne prosjekter hvor som helst i byen, uten styring fra kommunen" sier Magnus.

Det er fortsatt delte meninger om kommunens planer og helt uklart hva resultatet blir, men både de som er med og i mot har erklært vilje til å følge demokratiet. Kommunen har stiftet en arbeidsgruppe for å finne ut hva om hva besøkende, spesielt fra kulturelt like samfunn som Norge og Danmark, og beboere i Reykjavík egentlig synes om saken, siden den har et klart eksemplerverdi.

Følgende er spørsmål om saken. Husk at det ikke er noen rette eller feile svar på spørsmålene, og vi foreslår at du bruker magefølelsen når du svarer.

1. Vis på skalaene nedenfor i hvilken grad du er enig eller uenig i følgende utsagn:

a. Det er positivt å ha et åpent uteområde i byens sentrum som er enkelt og billig å bruke.

Svært enig Svært uenig

b. Det er mer positivt å ha åpent område i byens sentrum en å fastboke det, selv om bokingen er for en god sak.

Svært enig Svært uenig

c. Et åpent, fritt område er viktig for byens samfunn, selv om det er ikke mye brukt.

Svært enig Svært uenig

d. Med å organisere området taper alle i Reykjavik frihet, selv om ikke mange bruker det i praksis.

Svært enig Svært uenig

e. Parkens stillhet er i seg selv viktig for besøkende og byen generelt.

Svært enig Svært uenig

f. Pengene som blir brukt til å bygge opp den nye parken, bl.a. til å betale for vakthold og andre ansatte, skulle heller bli midlet direkte til skolene.

Svært enig Svært uenig

g. Det er viktig å ha mye aktivitet i en park som står i byens sentrum

Svært enig Svært uenig

h. Grundig organisering av parken fører til økt kunstnerisk kreativitet i byen

Svært enig Svært uenig

i. Med å organisere parken grundig økes friluftaktivitet hos barn og studenter.

Svært enig Svært uenig

j. Det er viktig for samfunnet at barn og studenter blir aktivt opprettet til å delta i kunstutvikling og friluftaktivitet

Svært enig Svært uenig

k. Med å organisere parken grundig får flere nytte den

Svært enig Svært uenig

2. Hva synes du om opposisjonens talsmann sin budskap?

God	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Dårlig
Sympatisk	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Usympatisk
Spennende	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Kjedelig
Irriterende	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Ikke irriterende

3. Hva synes du om kommunens budskap?

God	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Dårlig
Sympatisk	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Usympatisk
Spennende	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Kjedelig
Irriterende	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Ikke irriterende

4. Vis på skalaene nedenfor hvordan du oppfatter kilden Magnus Jónsson, som er intervjuet i artikkelen:

Uærlig	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Ærlig
Troverdig	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Ikke troverdig
Til å stole på	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Ikke til å stole på
Ikke sannferdig	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Sannferdig

5. Hvor viktig synes du at saken er?

Veldig viktig

Ikke viktig

6. I det neste minuttet, vennligst skriv ned alle tankene du har om saken. Etter at minuttet har gått, eller hvis du blir ferdig før minuttet er over, vennligst svar på de siste spørsmålene

7. Vis på skalaen nedenfor hvor nøyaktig du leste teksten:

Ikke nøyaktig
nøyaktig

veldig

8. Jeg er en

Mann

Kvinne

Takk for at du svarte på spørreundersøkelsen.