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Delay of Gratification in Interaction Rituals

Social psychology has developed a multitude of conceptions that refer to the richness of interpersonal interaction. This richness can be viewed as depth and complexity in person perception and self-perception, and also as the varieties and complexities of interaction forms. A full-blown interaction/communication is enabled by each participant's waiting for the other's reactions, basing one's reactions on the other's verbal and non- verbal presence, attending to and getting to know the other's contexts as well as the other's changing nature. The complete presence of another person, and the necessity of elapsed time with that person, are the pre-requisites for the development of multi-dimensional interactions and communications.

Delaying within the interaction is an integral part of such acting and reacting, as in getting acquainted with another, or deepening one's detailed perceptions of the other — from the start to the completion of any given interaction sequence. Our major point here has to do with the time, duration, or delay in interaction. These are the temporal aspects made necessary by complex forms of interaction.

The classic treatment of delay of gratification is primarily associated with Mischel (1974, 1996), but in turn can be traced back to frustration tolerance (e.g. Lawson, 1964). Within these schools of thought the primary issue is the individual's willingness or ability to wait, to endure frustration and non-gratification, and Mischel in particular has devoted research to the factors facilitating the person's delaying.

Although the classical delay of gratification concept refers specifically to delaying the consumption of concrete goal objects (as food), our use of delay here, in the context of complex social interaction, refers to the phenomenon as the enjoyment of the interaction itself, without being under pressure to reach a specific end-point, or final goal. One central question is why people do not invariably delay, thus allow the rituals — the mutual reactions — to run their original course. We want to provide a psychological starting point for examining certain short-term, and longer-term changes in social factors that make for the abbreviating of many interaction forms. These factors can be reduced to pressure to reach concrete goals in interactions, and to technical communication facilitators.

The other main issue is what takes place when a speed orientation is engendered, either in an acute sense, or as a longer-range cultural change. Given the factors of (1) pressure toward reaching concrete goals, and (2) presence of technical devices, speed and quantity in communication will be furthered. In turn, the resulting impatience and adopting of short cuts imply the emergence of *substitute* forms

of interaction/communication, the substitute form circumventing the natural playing-through of the original, multi-faceted rituals.

Original Interaction Forms

Our perspective focuses on the original interaction form, a sequence that goes beyond the simple exchange of information, and whose explicit purpose is not equivalent to attaining an identifiable goal. The original interaction is self-perpetuating, or intrinsically-motivating (De Charms, 1968; Deci & Ryan, 1985) in that the cues for prolonging the interaction lie in the mutually-stimulating character of the co-presence of the actors. The more intense the presence of each person, the greater the potential for a long chain of reaction sequences, with each person responding to the cues given by the other. The original interaction forms allow the expressing of parts of our being that we otherwise cannot act on. Acquaintanceship, childrens' play, or socialization experiences often have this quality, which we will describe subsequently.

Related to the original communication forms in humans are the rituals among pairs of fish, birds, or mammals (Tinbergen, 1953). The cues or sign stimuli are the changing colors of the fish, the strutting and displays of birds, the stops, starts, and rapid changes in approach and distancing that can carry on for hours. It is assumed that the character and sequencing of such rituals are the product of evolutionary wiring, and although such an assumption goes too far when extended to humans, much of what we are calling *original* has a ritual-like, or mutual setting-off-reactions quality.

We will now illustrate what we mean with *original interaction*; one of these examples bears on social learning and cultural socialization, while the second one deals with acquaintanceship and friendship. The reader should ask of both illustrations whether any essential qualities would be lost by hastening, abbreviating, and providing substitutes, for such original social forms.

Social Learning Through Imitating

The internalization of personal standards (values, morals), as depicted in Bandura (1965, 1977), Charon (1979), Diaz, Neal, and Amaya-Williams (1990), and Thomas (1996), stems from complex modeling, imitation, and the child's improvisation. Research examples and in-family observation (see Thomas, 1996) make it clear that direct and prolonged contact between children and their models is central in bringing about fully-developed repertoires in children. The multiplicity of cues in the visual, auditory, and tactile contact, and the time taken — for observing, exploring, repeating, and shaping up the contours of the developing repertoires — are ingredients for quality and progress in socialization. Part of such socialization is the development and practice of expressive skills – the social acts of externalizing subjective experience.

If these interactions with models are sped up drastically, or abbreviated, the differentiation and articulation of the products of socialization should shrink accordingly.

For example, if pressure for more efficient socialization leads to the dissemination of interactive computer programs, or to other surrogate models, then what happens to the spontaneous, encouraging smile, wink, nod, and to the model's occasionally catching the blush or stammer that cues off the nature of a learnefs problem (Lepper, Woolverton, Mumme, & Gurtner, 1993; Roszak, 1986)?

Friendships: Getting Acquainted and Continuation

Becoming acquainted, and developing and furthering friendships, is characterized by a gradualness, from the first impression (Aronson, 1995) through highly differentiated rituals of coming closer (Argyle, 1971; Duck, 1977; Hall, 1966), and going into self-disclosure on both verbal and non-verbal levels (Jourard, 1971). Friendship surely can begin with a visual or acoustical impression in a fleeting moment, but as the acquaintanceship deepens and intensifies, so do all of the reciprocal cognizing and emotional experiences, as well as the coming into play more fully of the visual, acoustical, olfactory, and tactile dimensions (Hall, 1966; Herman, Zanna, & Higgins, 1986). The give-and-take of the original interaction is then guided by mutually-given cues. These are the glance, the stare, the tone of voice, and the scarcely describable tactile components. This original form demands considerable delaying, waiting, not demanding a quick arrival at some concrete goal state. What is cumbersome at first, requiring many words and interpretations, gradually becomes smooth, and is replaced by gestures, evolved catch-words, a subtle change in posture or tone.

Obstacles, Short-Cuts, and the Transformation of the Original Interaction: Drawing on Lewin

Once these parent-child and friendship forms take shape, the self-motivating qualities of the interactions will become apparent. In Lewinian language (1926, 1951), the duration of an interaction has to do with a tension state, a motivational state that moves the person along a path toward tension reduction. This path can be lengthy, as the participants react and co-react, and the tension state will keep the movement alive until a degree of quiessence is attained.

Interruption and substitution. Lewin and his co- workers, Mahler (1933) and Zeigarnik (1927) for example, had participants engage in activities that were occasionally interrupted, blocked, or otherwise made more difficult. They based their work on Lewin (1926), and the following captures his thinking. A child who is en route to acquiring an attractive piece of chocolate from a neighbor is confronted with a vicious dog, blocking the child's intended path. The child's altered perceptual field then moves the action toward a detour route, and the tension state, corresponding to the intention, keeps the activity alive. But the detour will not invariably lead the child to the original chocolate; instead, the child may come across a substitute. For instance, a playmate might offer him a piece of chewing gum, and this substitute *can* have the consequence of reducing tension, ending the search.

The research of Mahler (1933) illustrates the functioning of substitutes. She varied experimentally the similarity of the offered substitute to the original goal or task, as well as the relative complexity. Those substitutes with the best potential for reducing the original tension were activities that were complex, and which were similar to the original. At the same time, even seemingly trivial substitutes effected some tension reduction, as measured by *non*-resumption of the original activity later.

In like manner, the way through many complex communication/interaction forms, toward tension reduction over a longer time span (Lewin), is marked by external and internal barriers. Internal barriers may be the felt complexities of the interaction — elements that slow the flow of behavior, and which also keep alive the tension state associated with the interaction. Certain other barriers are explicitly external. For instance, one participant needs to express a state of anger, but the partner is, for the moment, distracted by another conversation; or the child, involved in a story-telling game with an adult, is interrupted by a call to dinner. Aside from these external disruptions, the original interaction is often fraught with the barriers of the participants' own difficulties, such as lack of experience with the other person, a limited verbal repertoire, conversation habits that are out of alignment with those of the partner (Tannen, 1990), or even tiredness.

The complex, original interaction form implies paying close attention to the other, empathic attunement to the other's affective states, interpretation of non-verbal changes in minor movements, and the internal rehearsal (as in fantasy) of all that is observed or anticipated. The differentiated use of language, posture, interpersonal distance, tactile cues, even body temperature (Hall, 1966), are all elements that need to be perceived and reacted to, if the interaction is to proceed in an internally- motivated manner. But none of these potentially smooth sequences can be taken for granted: Introducing Lewin's (1926) and Mahlers' (1933) concept of barrier into the interaction means that the partners to the communication will often run across externally- and internally-imposed stumbling blocks. What happens, then, when an easier and quicker route to dealing with the other person becomes available, such that the original interaction can be short-circuited via a substitute form?

Why Is a Substitute Form Adopted?

We assume that the human is not invariably set to depart from the longer, more complex interaction, but that shifting to the substitute will be determined by a combination of the *strength of the tension state* and the *availability* of an alternative means of communication. The law of least effort, and the promise of quick tension reduction, lead people to take the most efficient-appearing route (Ainslie, 1986; Mischel, 1996).

Given that another person is not immediately available for face-to-face conversation (an external barrier), the salience of a telephone, fax machine, or e-mail connection provides a quick alternative to the three-dimensional communication. Not every conceivable route to quick action will pose a psychological substitute for the original interaction, but as long as the quick route has some ostensible bearing on the original purpose or direction, it is likely to acquire value as a substitute (Mahler, 1933).

Psychological Origins of the Speed Orientation

Aside from laboratory instructions to do something in a hurry (see Fiske & Taylor, 1991), what are the more general variables that bring about a posture of haste, or a readiness to adopt the substitutes that promise 'getting there' in a hurry? We see these antecedents as an intertwined duo: There is the *pressure experienced* by the person, i.e. Lewin's tension state, and coupled with this is the availability of a *speed-facilitating device*, a means of proceeding without delay to an explicit end point.

Experienced pressure. If an employer is anxious to have a new employee at the desk the following day, then the relaxed, one-on-one form of interview with the prospective employee might well be shortened up, transformed into a quick procedure entailing a questionnaire or other simple self-presentation vehicle. This substitution can take place, of course, only if the instrument of speed is available. A parallel case is the potential dating couple's readiness to shorten up the preliminaries associated with initial courtship. If one or both of them feels pressure to organize a date for the coming weekend, then waiting for preliminary introductions, meetings, and romantic rituals will be shoved aside by the impatience to have 'somebody' for Saturday night. Electronic modalities can simplify this kind of goal pursuit: One needs only a quick, to-the-point self-description, or a list of common interests and qualities (Gergen, 1991). The side effect is that of foregoing the rituals of initial courtship.

The sources of experienced pressure to 'get there' within social contexts are multiple. Aside from the intermittent rising of haste-prodding needs, there are also the human's control needs as directed to other humans (Langer, 1975; Lefcourt, 1982; Rotter, 1966). Particularly in uncertain situations, as in entering an unfamiliar social setting, the person will experience pressure to predict and simplify others' reaction possibilities (Miller & Norman, 1975; Miller, Norman, & Wright, 1978). Rather than waiting for the often surprising, uncontrollable interaction sequences to unfold, the uncertain participant desires to firm up the definitions of others in advance. There is thus little room for exploration of mutual reactions and individual contours.

With 'experienced pressure' we are speaking of a human who senses an urge to get on toward an end state — to finalize or clarify events. The pressure should make it especially likely that persons will avail themselves of speed devices: *Contra-delay devices*. These are the technical developments that may be seen as complementing the motivated state in human interaction. Our interest here is in technical developments that (a) save time in dealing with others, (b) enable more efficient and quantitatively extensive contact with others, (c) help specify the purpose of an interaction, or (d) reduce the essence of the interaction to its informational value. Authors such as Birkerts (1994), Gergen (1991), Postman (1982, 1985), and Roszak (1986) describe the evolution of technical innovations and their interworking with human interaction.

These authors' examples often begin with the telegraph, an efficiency device circumventing face-to-face contact, and carry the reader through the telephone, television, e-mail, and virtual reality. One can add to their list the automatization of numerous everyday human contact scenarios including drawing money out of the bank, purchasing lunch, buying travel tickets, or working in an office via computerized human contact. Technical communication devices, widely adopted on the grounds of

their appealing speed and simplicity, and for their ostensible goal-attaining effectiveness, have the clear effect of *interrupting* the original flow, shortening up and *abbreviating* human interaction and communication.

These numerous technical innovations offer speed, or immediacy, and at the same time reduce the original interaction form. Either the extent of the dimensionality, such as visual or tactile, is cut down, or the original form is compressed into a concrete goal-directed one. The implicit message of the time-saving device is that the participants are motivated toward a concrete end-point, but are not interested in an extended, intrinsically satisfying activity and the numerous sub-goals reached along the way. A high experienced pressure should render people especially ready to abandon the original form, and to turn toward a quick result. Correspondingly, the availability and use of speed devices should bring about a shift of orientation, so that the person desires to get to the end, to 'complete the transaction'.

Consequences of Speed Orientation

From Intrinsic Engagement to an Exchange Relationship

The transition is of a qualitative nature. To rush the interaction or to reduce its dimensionality by putting it in questionnaire form or on e-mail is to delete sensory modalities. One goes from sight, sound, smell, and touch all the way down to mere sound, or to the printed word. It can of course be argued that such richness and longevity in the original rituals are not absolutely necessary to produce and support most social phenomena.

Reeves and Nass (1996) demonstrate experimentally that numerous effects, as in impression formation, stereotyping, or politeness, can be reproduced via computer-mediated communication. Similarly, in experiments by Kiesler, Sproull, and Waters (1996) and by Postmes (1997) we see that certain social influence effects can be brought to life by means of electronically-mediated communication. The issue is whether such authors as Reeves and Nass (1996), or Rheingold (1993), are justified in equating the information-based, efficient communication forms with the slowly-evolving multi-dimensional ones.

Certainly the original sensations, based in multiple sensory modalities, disappear or become unreal, which we may see in and of itself as a reduction of the nature of interaction. Whether or not people experience the shrinking of the dimensionality as a deficit is a quite different question: As Birkerts (1994) has proposed, humans accomodate themselves to each progressive abstraction in communication, to each movement 'away from the natural given' (pp. 223-224). The adopting of a speedier route reduces the experience of the other's (and of one's own) textures; a depersonalized social context is the end effect of the reduction in available social cues (Postmes,1997). Once the interaction has been sped up, certain goals that were not present or obvious during the original interaction now come to the fore. These goals are often associated with information *gain* and information *exchange* (Postman, 1985; Postmes, 1997; Roszak, 1986).

The efficient device carries the implicit assumption that there is a clear purpose in communication/interaction, in that the communication should be brought to a quick

close, once the goal of exchanging or delivering specified information has been reached. Suppose that a person, wishing to reach another by telephone for an intimate dialogue, finds that no one answers. Instead, an answering machine cuts in ('Please leave a message at the tone'), and the would-be conversation is now transformed into a clear goal. That is, the caller is requested to get right to 'the point'. Demanded are (a) the caller's intentions, (b) when the caller can be reached, (c) and whether some factual information is to be conveyed. From a mutually stimulating interaction, the communication is moved to the level of concrete, temporally/spatially-defined goals, even if one's goal is to try to move back into an original interaction form with the person who is now represented by the answering machine.

Goal-related stimuli come to dominate the communication, and the salience and frequency of short-range goals re-define the character of the communication. Functionally, the attainment of such goals, of exerting control over the other in specific ways, are substitutes for the original flow of interaction. In this context there is the interesting contrast between 'communal' and 'exchange' (Clark & Mills, 1979; Clark, Mills, & Powell, 1986). In the exchange-dominated interaction, participants abide by equity or other procedural rules, giving attention to one another's input/output ratio. In the communal relationship these cost/benefit considerations are infrequent, and emotional display is greater (Aronson, 1995). To the extent that cost/benefit calculations enter the communication, they apply over a longer time span, so that each interaction phase is not underlined by the cost/benefit definition of participating.

The creation of a new and salient goal. In adopting the substitute form, the interaction can be described in terms of exchange. The other is useful or not; both parties are on their way to achieving some final, concrete gains or losses. Judgments, truths, humor all became *information.* Thinking in terms of an end point, or multiple end points to be reached by means of the other person, the time perspective shortens (Csikszentmihalyi, 1990). The prototype of this kind of transformation is the paradigm of interaction known as exchange. At least from the researchers' perspectives, the participant's thoughts are on the points, monetary units, or other along-the-way rewards that are represented by the other's presence or imagined presence (Homans, 1961; Thibaut & Kelley, 1959). Our depicting of this transition, from intrinsic to exchange, is a statement about the pulling apart of the long-duration, intrinsically-motivated contacts embodied in the original interaction.

The theme of exchange also carries into observed effects of computer-mediated instruction. Lepper, Woolverton, Mumme, and Gurtner (1993) have researched the routines of effective face-to-face tutors, and they find that very little of the tutor-student interaction has a strict information-exchange character. By way of contrast, the computer-mediated tutoring has a dominant quality of information exchange, and scarcely allows the optimizing of student's affect and motivation.

Consequences for Perceiving the Other in Interaction

Perspective-taking. Piaget (1924) and Piaget and Inhelder (1947) contributed some of the first insights into the process of perspective-taking — a pre-requisite for mature

dealing with other individuals. Often their research entails visual perspective-taking, a paradigm that requires the full presence of both participants. That is, the person perceiver (the person who may or may not take the other's perspective) must size up the other's context, in order to know whether that other is in the position to observe certain objects that the perceiver himself can see.

What happens when speed-inducing forces come to bear on such settings? One observation, stemming from research by Steins and Wicklund (1996) and Stephenson and Wicklund (1983), is that the perceiver who is motivated to come to terms with a personal problem, within the interaction, shows less capacity to take the other's perspective. For instance, studies by Steins and Wicklund (1996) demonstrate how a desire to control the other reduces adopting that person's perspective. Further, the less time respondents take in the person perception task, the more egocentric they are toward the other.

While there is no research on the explicit question of the impact of speed devices per se on classical Piagetian measures, one element of the speed orientation almost insures that perspective-taking would decay: This is the fact of the reduction of the dimensionality of the interaction with speed devices, which results in the perceivers having fewer cues as a starting point for sensing or judging the other's standpoint.

Reducing the other to a category. There is another manifestation of the hastened person's minimizing the other in person perception. A full acknowledgment of the other entails an attunement to that person's context, and to the changing facets of that other (White & Younger, 1988). In a complex interaction form of some duration, the mutual, three-dimensional reacting involves reactions to the other-plus-context, and perceiving the changes in the other's mood, energy, attention, and even in personality.

To put a person under time pressure, either to get to know the other rapidly, to control the person, or to reach a specific goal, is to bring the perceiver to simplify perceptions of the other. According to Fiske and Taylor (1991), time pressure results in over-simplified judgments of others, in schema-based judgments, in a need for closure regarding one's perception of the other. Personality traits and other static, fixed person categories are more frequently assigned to another person when the perceiver is under pressure in the situation. Implementing an impression-formation scenario, Kruglanski and Freund (1983) noted a sharp increment in the use of ethnic stereotypes when respondents were under time pressure to consider a target person's performance. This sort of category use, as a result of speed orientation, is a variant on failing perspective-taking, in that the perceptions, motives, and the manner of the other are moved toward a static, category-defined direction.

Fantasizing about the other. A number of lines of research document the phenomenon of individual's fantasizing about others, in terms of former romantic partners (Steins & Wicklund, 1996) and with respect to wished-for love partners (Oettingen, 1996). A strong friendship or love relationship is an original interaction form that spans considerable time dimensions, and in line with Lewin's (1926, 1951) and Mahler's (1933) notion of different planes of reality, it follows that the communication/interaction will be continued, albeit in fantasy form, when actual presence is not possible.

Thus the psychological bridge between two face-to-face interactions is constituted by playing it through, in detail, in fantasy. That is, the flow of events, which is quite

freely initiated, approximates the delay character of the original interaction: There is no acceleration toward a goal. But a speed orientation, originating in felt pressure to move toward some end state, or in the salience of a speed device, will interrupt the playing-through of fantasies. Aiming toward a goal with regard to one's partner, the impatience will lead to using substitute contact possibilities, thus *concretizing* the other person and pushing aside the otherwise free fantasizing.

Consequences for One's Person in Interaction

To be controlled through information, stimulus-controlled, or to be over-stimulated with strong cues to act reduces the possibility of acting on the basis of the traits, values, and opinions that one has incorporated earlier. This means that *self*-regulation (Deci & Ryan, 1985) and more generally – the engagement of self aspects of any sort – are attenuated owing to the onset of the speed orientation.

There are then implications for a number of individual states, or qualities, that normally underlie the participant's own uniqueness and contours during an interaction. For Baumeister (1991), such a condition of relative passivity goes hand-in-hand with a reduction in the participation of one's own self. Referring to multi-cue interactions and communications of longevity, Birkerts (1994) and Csikszentmihalyi (1990) both assume a diminished sense of self, given that the social process is hastened or turned into a concrete, task-oriented sequence.

Take the case of a person's emotions during the course of an original interaction. The progression from the first hints of an emotional state, toward its full-blown emergence, can be described in terms of the person's attention to some potentially emotion-arousing event, then the entrance of autonomic and endocrine responses, non-voluntary motor responses, as in the face or posture, experienced affect, and perhaps emotionally-based instrumental action (Klinger, 1996). The emergence and running through of an emotion requires a certain full-dimensionality in interaction. Emotional sequences will be abbreviated, cut off, take on an 'as if' quality, once a speed orientation re-defines the quality of the interaction.

There is more to the individual than the readiness to exhibit emotions. The interaction participant's use of internalized facets of the individual self, such as unique motives, personality traits, or values, also requires the full dimensionality and longevity of the original interaction. In part, this is because the internalization of those values and traits likely took place in complex, drawn-out interaction forms (see Bandura, 1977; Lepper et al., 1993; Thomas, 1996). Therefore, the implementation of those individual facets is more complete when a current interaction is similar to the conditions of internalization. But more generally, an information-dominated, stimulus-controlled short form of interaction simply does not grant the individual the freedom, spatially and temporally, to manifest unique values, moralities, or personality traits. Showing one's multi-contoured self, and the resultant changing personal contours that become manifest during interaction, will be inhibited when interaction is refocused toward a single end state, and when there is a reduction to the exchange level, rather than leeway for full expression.

Summary

Delay, patience, and participating in the multiple cues to communication are integral features of numerous interaction forms. The complex, multi-dimensional ones are the subject of our interest here. The theoretical analysis, beginning with Lewin (1926, 1951), views these more complex interpersonal rituals as often fraught with barriers or obstacles. Awkwardness, embarrassment, waiting for the other, context-dependency — all of these provide a readiness to take short-cuts, to find and adopt substitutes that circumvent the lengthy rituals.

Our analysis focuses on what we have called the *speed orientation*, stemming from (1) pressure to move toward an end state and (2) the availability of devices that enable the participants to take a substitute form of communication. Stressful or otherwise highly motivating conditions, and also individual differences in readiness to react quickly, to attain closure, to become aroused, all serve to define whether an individual is currently experiencing pressure to move to a goal in interaction, toward clarity or finality.

Speed devices are constituted not just by electronically mediated communication, but by any mechanism that reduces the effort and time of the participants. These include, for instance, pre-written or pre-recorded messages and advanced organizers for interaction. We regard the speed orientation, no matter how it comes into being, as leading to an altered, reduced form of interaction. The altered, or substitute form, has further ramifications for the perception of one's inter-action partner and for one's own psychological state and implementing of the self during communication.

References

Ainslie, G. (1986). Beyond microeconomics. Conflict among interests in a multiple self as a determinant of value. In J. Elster (Ed.), *The multiple self* (pp. 133-175). New York: Cambridge.

Argyle, M. (1971). *The psychology of interpersonal behavior*. Harmondsworth: Penguin. Aronson, E. (1995). *The social animal*. New York: Freeman.

Bandura, A. (1965). Influence of models reinforcement contingencies on the acquisition of imitative responses. *Journal of Personality and Social Psychology, 1*, 589-595.

Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, N.J.: Prentice-Hall.

Baumeister, R.F. (1991). *Escaping the self*. New York: Basic.

Birkerts, S. (1994). *The Gutenberg elegies*. Boston: Faber & Faber.

Charon, J.M (1979). *Symbolic interactionism: An introduction, an interpretation, an integration*. Englewood Cliffs, N.J.: Prentice Hall.

Clark, M.S. & Mills, J. (1979). Interpersonal attraction in exchange and communal relationships. *Journal of Personality and Social Psychology, 37*, 12-24.

Clark, M.S., Mills, J., & Powell, M.C. (1986). Keeping track of needs in communal and exchange relationships. *Journal of Personality and Social Psychology, 51*, 333- 338.

Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience*. New York: Harper & Row.

DeCharms, R. (1968). *Personal causation*. New York: Academic Press.

Deci, E.L., & Ryan, R.M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum.

Diaz, R.M., Neal, C.J., & Amaya-Williams, M. (1990). The social origins of self-regulation. In L.C. Moll (Ed.), *Vygotsky and education* (pp. 127-154). Cambridge, England: Cambridge University Press.

Duck, S. (1977). *The study of acquaintance*. Farnborough: Saxon House. Easterbrook, J.A. (1978). *The determinants of free will*. New York: Academic Press.

Fiske, S.T & Taylor, S.E. (1991). *Social cognition* (2nd ed.). New York: McGraw-Hill.
Flavell, J.H., Botkin, P.T, Fry, C.L., Wright, J.W, & Jarvis, P.E. (1968). *The development of role- taking and communication skills in children.* New York: Wiley.
Gergen, K.J. (1991). *The saturated self: Dilemmas of identity in contemporary life.* New York: Basic.
Hall, E.T. (1966). *The hidden dimension.* Garden City, N.Y.: Anchor Books.
Herman, C.P., Zanna, M.P., & Higgins, E.T. (Eds., 1986). *Physical appearance, stigma, and social behavior: The Ontario Symposium,* Vol. 3. Hillsdale N.J.: Erlbaum.
Homans, G.C. (1961). *Social behavior: Its elementary forms.* New York: Harcourt, Brace, & World.
Jourard, S.M. (1971). *The transparent self.* New York: Van Nostrand.
Kiesler, S., Sproull, L., & Waters, K. (1996). A prisonefs dilemma experiment on cooperation with people and human-like computers. *Journal of Personality and Social Psychology, 70,* 47-65.
Klinger, E. (1996). Emotional influences on cognitive processing, with implications for theories of both. In P.M. Gollwitzer and J.A. Bargh (Eds.), *The psychology of action: Linking coqnition and motivation to behavior* (pp. 168-189). New York: Guilford.
Kruglanski, A.W. & Freund, T. (1983). The freezing and unfreezing of lay-inferences: Effects on impressional primacy, ethnic stereotyping, and numerical anchoring. *Journal of Experimental Social Psychology, 19,* 448-468.
Langer, E.J. (1975). The illusion of control. *Journal of Personality and Social Psychology, 32,* 311-328.
Lawson, R. (1965). *Frustration: The development of a scientific concept.* New York: Macmillan.
Lefcourt, H.M. (1976). *Locus of control: Current trends in theory and research.* Hillsdale, N.J.: Erlbaum.
Lepper, M.R., Woolverton, M., Mumme, D.L., & Gurtner, J.-L. (1993). Motivational techniques of expert human tutors: Lessons for the design of computer- based tutors. In S.P. Lajoie & S.J. Derry (Eds.), *Computers as cognitive tools* (pp. 75-105). Hillsdale, N.J.: Erlbaum.
Lewin, K. (1926). Vorsatz, Wille und Bedürfnis. *Psychologische Forschung, 7,* 330-385.
Lewin, K. (1951). Intention, will, and need. In D. Rapaport (Ed.), *Organization and pathology of thought* (pp. 95-153). New York: Columbia University Press.
Mahler, W. (1933). Ersatzhandlungen verschiedenen Realitäts- grades. *Psychologische Forschung, 18,* 27-89.
Miller, D.T. & Norman, S.A. (1975). Actor-observer differences in perception of effective control. *Journal of Personality and Social Psychology, 31,* 503-515.
Miller, D.T., Norman, S.A., & Wright, E. (1978). Distortion in person perception as a consequence of the need for effective control. *Journal of Personality and Social Psychology, 36,* 598-607.
Mischel, W. (1974). Processes in delay of gratification. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 7, pp. 249-292). New York: Academic Press.
Mischel, W. (1996). From good intentions to willpower. In P.M. Gollwitzer & J.A. Bargh (Eds.), *The psychology of action: Linking cognition and motivation to behavior* (pp. 197-218). New York: Guilford.
Oettingen, G. (1996). Positive fantasy and motivation. In P.M. Gollwitzer & J.A. Bargh (Eds.), *The psychology of action: Linking coqnition and motivation to behavior* (pp. 236-259). New York: Guilford.
Piaget, J. (1966). *Judgment and reasoning in the child.* Totowa, N.J.: Littlefield, Adams. (Original work in 1924).
Piaget, J. & Inhelder, B. (1947). *La représentation de Íespace chez Íenfant.* Paris: Presses Universitaires de France.
Postman, N. (1982). *The disappearance of childhood.* New York: Vintage.
Postman, N. (1985). *Amusing ourselves to death.* New York: Penguin.
Postmes, T. (1997). *Social influence in computer-mediated groups.* Unpublished PhD thesis, University of Amsterdam.
Reeves, B. & Nass, C. (1996). *The media equation: How people treat computers, television, and new media like real people and places.* Stanford, CA.: CSLI Publications.
Rheingold, H. (1993). *The virtual community: Homesteading on the electronic frontier.* New York: Harper.
Roszak, T. (1986). *The cult of information.* Berkeley, CA.: University of California Press.
Rotter, J.B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs, 80,* (whole No. 609).
Steins, G., & Wicklund, R.A. (1996). Perspective-taking, conflict, and press: Drawing an *E* on your forehead. *Basic and Applied Social Psychology, 18,* 319-346.
Stephenson, B., & Wicklund, R.A. (1983). Self-directed attention and taking the othefs perspective. *Journal of Experimental Social Psychology, 19,* 58-77.

Tannen, D. (1990). *You just dońt understand.* New York: Ballantine.
Thibaut, J.W. & Kelley, H.H. (1959). *The social psychology of groups.* New York: Wiley.
Thomas, R.M. (1996). *Comparing theories of child development.* Pacific Grove, CA.: Brooks/Cole.
Tinbergen, N. (1953). *Social behaviour in animals.* New York: Wiley.
White, P.A. & Younger, D.P. (1988). Differences in the ascription of transient internal states to self and other. *Journal of Experimental Social Psychology, 24,* 292-309.
Zeigarnik, B. (1927). Über das Behalten von erledigten und unerledigten Handlungen. *Psychologische Forschung, 9,* 1-85.

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We owe a debt of gratitude to Gian-Paolo Caminiti, Terje Manger, Jostein Rise, and Reiner Rugulies for their comments on an earlier version of this manuscript.